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FIELD MUSEUM OF NATURAL HISTORY

FOUNDED BY MARSHALL FIELD, 1893

PUBLICATION 330

ZOOLOGICAL SERIES

VOLUME XIII

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CATALOGUE OF BIRDS OF THE AMERICAS

BY

CHARLES E. HELLMAYR

ASSOCIATE CURATOR OF BIRDS

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PART VII

CORVIDAE - PARIDAE - SITTIDAE - CERTHIIDAE - CHAMAEIDAE

CINCLIDAE - TROGLODYTIDAE - PRUNELLIDAE - MIMIDAE

TURDIDAE - ZELEDONIIDAE - SYLVIIDAE

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WILFRED H. OSGOOD

CURATOR, DEPARTMENT OF ZOOLOGY

EDITOR



CHICAGO, U. S. A.

NOVEMBER 15, 1934

*Recd Nov. 20, 1934*



PUBLICATIONS  
OF  
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CATALOGUE OF BIRDS OF THE AMERICAS  
AND THE ADJACENT ISLANDS

IN

FIELD MUSEUM OF NATURAL HISTORY

INCLUDING ALL SPECIES AND SUBSPECIES KNOWN TO OCCUR IN NORTH AMERICA,  
MEXICO, CENTRAL AMERICA, SOUTH AMERICA, THE WEST INDIES, AND  
ISLANDS OF THE CARIBBEAN SEA, THE GALAPAGOS ARCHIPELAGO,  
AND OTHER ISLANDS WHICH MAY BE INCLUDED ON  
ACCOUNT OF THEIR FAUNAL AFFINITIES

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PREFACE TO PART VII

The present installment begins the enumeration of the American Oscines. It contains the list of the species and subspecies, recognized as valid by the author, of twelve families, including three large groups, the Corvidae, Troglodytidae, and Turdidae, which are among the most difficult from a taxonomic point of view. As in the preceding parts of this work, the author has endeavored to arrange in natural groups the multitudinous forms, often described as "species" on the basis of supposed "non-intergradation," and has made liberal use of trinomial nomenclature for the purpose of expressing genetic relationship. In cases, however, where lack of adequate material or incompleteness of data rendered definite judgment impossible, the author thought it wise to follow general custom in the treatment of the respective forms and confined himself to suggesting what their ultimate position might be. Great care has been taken in verifying original descriptions and other bibliographic references. A new feature in this Part is an indication as to where the types of the various described forms, whether valid or synonymous, are actually located. This investigation entailed a good deal of research and correspondence, and, while it has not been always successful in the case of early names, it is hoped that the information thus gained will be of some use to future workers. Though no attempt has been made to include every published reference, it is believed that very few important records relating to South American birds have been overlooked. In the case of North and Central American forms, whose complete synonymy may be found in Ridgway's great work, only some of the principal references have been quoted.

As in the past, the author has again to record with gratitude the cooperation of museums and individuals by the generous loan of material and other acts of courtesy, without which the production of this volume would have been well-nigh impossible.

In addition to the persons mentioned in the Preface to Part VI, acknowledgments are due to Dr. Enrico Festa, of the University Museum, Turin, Italy; Mr. August Hemprich, of the Municipal Museum, Halberstadt, Germany; Dr. Robert Mertens, of the Senckenbergian Natural History Museum, Frankfurt, Germany; Professor H. Schauinsland, of the Bremen Museum, Germany; Dr. Witmer Stone, of the Academy of Natural Sciences, Philadelphia, Penn-

sylvania; and Mr. P. A. Taverner, of Ottawa, Canada. To the last-named gentleman I am particularly indebted for the loan of several hundred Canadian jays from the Canadian National Museum. In concluding, I must not forget to mention the late Eliot C. Underdown, my faithful assistant, who rendered material help by measuring specimens, compiling synonymy, and comparing certain types for me in the collections at Cambridge and Philadelphia.

C. E. HELLMAYR

*July 1, 1932*

# CONTENTS

## Orders, Families, and Genera Included in Part VII

### ORDER PASSERIFORMES

#### SUBORDER OSCINES

FAMILY CORVIDAE (Crows and Jays)		FAMILY TROGLODYTIDAE (Wrens)	
SUBFAMILY CORVINAE	PAGE		PAGE
<i>Corvus</i> Linnaeus.....	1	<i>Cinnycerthia</i> Lesson.....	110
<i>Nucifraga</i> Brisson.....	9	<i>Cistothorus</i> Cabanis.....	114
<i>Cyanocephalus</i> Bonaparte.....	9	<i>Heleodytes</i> Cabanis.....	128
SUBFAMILY GARRULINAE		<i>Odontorchilus</i> Richmond.....	151
<i>Pica</i> Brisson.....	10	<i>Thryothorus</i> Vieillot.....	153
<i>Calocitta</i> Gray.....	11	<i>Thryomanes</i> Sclater.....	210
<i>Psilorhinus</i> Rüppell.....	14	<i>Ferminia</i> Barbour.....	216
<i>Cyanocorax</i> Boie.....	17	<i>Troglodytes</i> Vieillot.....	216
<i>Uroleuca</i> Bonaparte.....	29	<i>Thryorchilus</i> Oberholser.....	254
<i>Xanthoura</i> Bonaparte.....	30	<i>Henicorhina</i> Sclater and Salvin....	255
<i>Cissilopha</i> Bonaparte.....	37	<i>Nannorchilus</i> Ridgway.....	271
<i>Cyanolyca</i> Cabanis.....	41	<i>Salpinctes</i> Cabanis.....	273
<i>Aphelocoma</i> Cabanis.....	50	<i>Catherpes</i> Baird.....	276
<i>Cyanocitta</i> Strickland.....	59	<i>Hylorchilus</i> Nelson.....	279
<i>Perisoreus</i> Bonaparte.....	66	<i>Microcerculus</i> Sclater.....	279
		<i>Leucolepis</i> Reichenbach.....	286
FAMILY PARIDAE (Titmice)		FAMILY PRUNELLIDAE (Accentors)	
SUBFAMILY PARINAE		<i>Prunella</i> Vieillot.....	295
<i>Parus</i> Linnaeus.....	70	FAMILY MIMIDAE (Mockingbirds)	
SUBFAMILY REMIZINAE		<i>Toxostoma</i> Wagler.....	295
<i>Auriparus</i> Baird.....	86	<i>Melanotis</i> Bonaparte.....	303
SUBFAMILY PSALTRIPARINAE		<i>Melanoptila</i> Sclater.....	304
<i>Psaltriparus</i> Bonaparte.....	88	<i>Mimodes</i> Ridgway.....	305
FAMILY SITTIDAE (Nuthatches)		<i>Dumetella</i> S. D. W.....	305
SUBFAMILY SITTINAE		<i>Mimus</i> Boie.....	306
<i>Sitta</i> Linnaeus.....	93	<i>Nesomimus</i> Ridgway.....	333
FAMILY CERTHIIDAE (Creepers)		<i>Oreoscopes</i> Baird.....	339
SUBFAMILY CERTHIINAE		<i>Allenia</i> Cory.....	339
<i>Certhia</i> Linnaeus.....	100	<i>Margarops</i> Sclater.....	340
FAMILY CHAMAEIDAE (Wren-tits)		<i>Ramphocinclus</i> Lafresnaye.....	342
<i>Chamaea</i> Gambel.....	104	<i>Cinclocerthia</i> Gray.....	344
FAMILY CINCLIDAE (Dippers)		<i>Donacobius</i> Swainson.....	347
<i>Cinclus</i> Borkhausen.....	106	FAMILY TURDIDAE (Thrushes, Bluebirds, Stonechats, and Solitaires)	
		<i>Turdus</i> Linnaeus.....	350
		<i>Ixoreus</i> Bonaparte.....	424
		<i>Platycichla</i> Baird.....	425

	PAGE		
<i>Cichlopsis</i> Cabanis.....	431	FAMILY ZELEDONIIDAE	
<i>Myadestes</i> Swainson.....	434	(Wren-thrushes)	
<i>Entomodestes</i> Stejneger.....	444		PAGE
<i>Mimocichla</i> Sclater.....	445	<i>Zeledonia</i> Ridgway.....	484
<i>Haplocichla</i> Ridgway.....	449	FAMILY SYLVIIDAE	
<i>Cichlherminia</i> Bonaparte.....	450	(Warblers, Gnatcatchers, and	
<i>Hylocichla</i> Baird.....	452	Kinglets)	
<i>Catharus</i> Bonaparte.....	461	SUBFAMILY SYLVIINAE	
<i>Ridgwayia</i> Stejneger.....	476	<i>Acanthopneuste</i> Blasius.....	484
<i>Sialia</i> Swainson.....	477	<i>Locustella</i> Kaup.....	485
<i>Oenanthe</i> Vieillot.....	482	SUBFAMILY POLIOPTILINAE	
<i>Cyanosylvia</i> Brehm.....	483	<i>Polioptila</i> Sclater.....	485
<i>Calliope</i> Gould.....	483	SUBFAMILY REGULINAE	
		<i>Regulus</i> Cuvier.....	510

# LIST OF NEW NAMES PROPOSED IN PART VII

<i>Heleodytes brunneicapillus yucatanicus</i> subsp. nov.....	150
<i>Thryothorus leucotis zuliensis</i> subsp. nov.....	164

# CATALOGUE OF BIRDS OF THE AMERICAS

BY CHARLES E. HELLMAYR

## PART VII

Order PASSERIFORMES—Continued

Suborder OSCINES

Family CORVIDAE. Crows and Jays

Subfamily CORVINAE

Genus CORVUS Linnaeus

*Corvus* Linnaeus, Syst. Nat., 10th ed., 1, p. 105, 1758—type, by tautonymy, "*Corvus*" = *Corvus corax* Linnaeus.

*Corone* Kaup, Skizz. Entwickl. Europ. Thierw., p. 99, 1829—type, by subs. desig. (Gray, Cat. Gen. Subgen. Bds., p. 64, 1855), *Corvus corone* Linnaeus.

*Trypanocorax* Sundevall (ex Bonaparte<sup>1</sup>), Meth. Av. Tent., p. 43, 1872—type, by monotypy, *Corvus frugilegus* Linnaeus.

*Microcorax* Sharpe, Cat. Bds. Brit. Mus., 3, p. 48, 1877—type, by subs. desig. (Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 256, 1904), *Corvus jamaicensis* Gmelin.

### \**Corvus corax principalis* Ridgway.<sup>2</sup> NORTHERN RAVEN.

*Corvus corax* var. *littoralis* (not *Corvus littoralis* Brehm, 1831) Holboell, in Kroyer's Tidsskrift, 4, p. 390, 1843—Greenland and Labrador.

<sup>1</sup> *Trypanocorax* Bonaparte (Ann. Sci. Nat., (4), Zool., 1, p. 113, 1854) is a nomen nudum.

<sup>2</sup> Meinertzhagen (l.c.), after careful study of over 600 specimens, has come to the conclusion that the ravens of northern and eastern North America are inseparable from the birds of central Asia. Without the necessary comparative material it has been deemed advisable to follow current classification and preserve for the Northern Raven the name *C. c. principalis* Ridgway. Certain American birds in Field Museum, it must be admitted, however, are indistinguishable from two specimens of *C. c. tibetanus* from Szechwan. The highly erratic variation among ravens accounts for the number of forms described, but in a thorough study it is not apparent that any hard and fast rules for their separation can be laid down. The status of Greenland ravens has been much commented on, Miller and Griscom going so far as to propose their reference to *C. c. islandicus* Hantzsch, a form not recognized by Meinertzhagen.

## 2 FIELD MUSEUM OF NATURAL HISTORY—ZOOLOGY, VOL. XIII

*Corvus corax principalis* Ridgway, Man. N. Am. Bds., p. 361, 1887—"Northern North America"—St. Michael, Alaska (type in U. S. National Museum); idem, Bull. U. S. Nat. Mus., 50, Part 3, p. 259, 1904 (monog., full bibliog.); Oberholser, Ohio Journ. Sci., 18, p. 214, 1918 (monog., crit.).

*Corvus corax euophilus* Oberholser, Ohio Journ. Sci., 18, p. 215, 1918—Ardell, Alabama (type in U. S. National Museum).

*Corvus corax tibetanus* Meinertzhagen, Nov. Zool., 33, p. 98, 1926—part, North America (monog., crit.).

*Range*.—Northwestern Alaska, Melville Island, northern Ellesmere Island, and (?) Greenland south to Washington, Minnesota, Michigan, coast region of New Jersey (formerly) and Virginia, and in the higher Alleghenies to Georgia.

9: Alaska (Sitka, 1); Alberta (Red Deer, 3); "Ungava," 1; Labrador (Nachvak, 2); Baffin Land, 2.

### \**Corvus corax sinuatus* Wagler. MEXICAN RAVEN.

*Corvus sinuatus* (Lichtenstein MS.) Wagler, Isis, 22, p. 748, 1828—"Mexico" (type in Berlin Museum).

*Corvus cacalotl* Wagler, Isis, 1831, p. 527—based on "Cacalotl" of Hernandez; Mexico.

*Corvus nobilis* Gould, Proc. Zool. Soc. Lond., 5, "1837," p. 79, Feb., 1838—Mexico (type in coll. Zoological Society of London).

*Corvus corax clarionensis* Rothschild and Hartert, Nov. Zool., 9, p. 381, 1902—Clarion Island, Revillagigedo group (type in Tring Museum); Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 264, 1904—Revillagigedo group, Lower California, and southern California; Oberholser, Ohio Journ. Sci., 18, p. 224, 1918 (monog.); McLellan, Proc. Calif. Acad. Sci., (4), 16, p. 305, 1926—Revillagigedo Islands.

*Corvus corax richardsoni* Miller and Griscom, Amer. Mus. Nov., 184, p. 5, 1925—San Rafael del Norte, Nicaragua (type in the American Museum of Natural History, New York).

*Corvus corax sinuatus* Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 262, 1904 (monog., full bibliog.); Miller, Bull. Amer. Mus. N. H., 21, p. 359, 1905—Sinaloa; idem, l.c., 22, p. 170, 1906—Durango; Oberholser, Ohio Journ. Sci., 18, p. 219, 1918 (monog.); Meinertzhagen, Nov. Zool., 33, p. 102, 1926 (monog., crit.); Grinnell, Univ. Calif. Pub. Zool., 32, p. 147, 1928—Lower California (crit.); van Rossem, Trans. San Diego Soc. N. H., 6, p. 271, 1931—Sonora.

*Range*.—Western United States, from Oregon, southeastern British Columbia, Montana, and North Dakota south to Nicaragua.

17: Montana (Columbia Falls, 3; Flatbush County, 1); Wyoming (Percy, 1); California (San Clemente Island, 2); Arizona (Phoenix, 2; Calabasas, 1); Chihuahua (Bastillos, 3); Sonora (Cerro Blanco Mines, 3); Jalisco (Tuxpan, 1).



**\*Corvus cryptoleucus Couch. WHITE-NECKED RAVEN.**

*Corvus cryptoleucus* Couch, Proc. Acad. Nat. Sci. Phila., 7, p. 66, 1854—Tamaulipas, Mexico (type in U. S. National Museum); Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 265, 1904 (monog., full bibliog.); Grinnell, Pac. Coast Avifauna, 11, p. 186, 1915—California (hypothetical, crit.); Meinertzhagen, Nov. Zool., 33, p. 97, 1926 (monog.); van Rossem, Trans. San Diego Soc. N. H., 6, p. 271, 1931—Saric, Sonora.

**Range.**—Deserts of the western United States and Mexico, from Arizona, New Mexico, and central Texas south to Guanajuato, Mexico; formerly north to Colorado, Nebraska, and Kansas.

25: Texas (El Paso, 6; lower Rio Grande River, 1); Arizona (Huachuca Plains, 13); New Mexico (Deming, 5).

**Corvus corone cornix Linnaeus. HOODED CROW.**

*Corvus cornix* Linnaeus, Syst. Nat., 10th ed., 1, p. 105, 1758—"Europa," restr. type locality, Sweden; Winge, Medd. om Grønland, 21, p. 268, 1898—near Angmagsalik, East Greenland; Helms, Vidensk. Medd. Naturhist. Foren., 1898, p. 173—Angmagsalik; idem, l.c., 1904, p. 111—Angmagsalik (date corrected).

**Range.**—Extralimital. Rare straggler on the east coast of Greenland (one record from Angmagsalik, May 19, 1897).

**\*Corvus corone brachyrhynchos Brehm.<sup>1</sup> AMERICAN CROW.**

*Corvus brachyrhynchos* Brehm, Beitr. Vögelkunde, 2, p. 56, 1822—"North America"—Boston, Massachusetts.<sup>2</sup>

*Corvus americanus* Audubon, Orn. Biog., 2, p. 317, 1834—eastern United States (type in U. S. National Museum ?).<sup>3</sup>

*Corvus frugivorus* Coues, Proc. Acad. Nat. Sci. Phila., 1875, p. 346—based on *Corvus frugivorus*, "the Common Crow," Bartram, Travels, p. 290; Pennsylvania.

*Corvus americanus americanus* Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 267, 1904—part (monog., full bibliog.).

**Range.**—Eastern North America, from southwestern Mackenzie, northern Manitoba, southern Quebec, and Newfoundland south to Maryland, the northern part of the Gulf states, and northern Texas.

36: Maine (Upton, 1; Brewer, 2); Massachusetts (Hyannis, 1); New York (Shelter Island, 3); New Jersey (Englewood, 1); Illinois (Fort Sheridan, 1; Worth, 1; Joliet, 4; Chicago, 1; Fox Lake, 2; Deerfield, 1); Wisconsin (Beaver Dam, 17; Milton, 1).

<sup>1</sup> Comparison of a very large series of the European Crow in Field Museum shows the American Crow to be clearly conspecific. Cf. also Meise, Journ. Orn., 76, pp. 1-203, 1928.

<sup>2</sup> Cf. Howell, Proc. Biol. Soc. Wash., 26, p. 200, 1913.

<sup>3</sup> Cf. Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 268, 1904.

**\*Corvus corone paulus** Howell.<sup>1</sup> SOUTHERN CROW.

*Corvus brachyrhynchos paulus* Howell, Proc. Biol. Soc. Wash., 26, p. 199, 1913—Bon Secour, Alabama (type in U. S. National Museum); Meinertzhagen, Nov. Zool., 33, p. 89, 1926 (crit.).

*Corvus americanus americanus* Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 267, 1904—part (monog., full bibliog.).

*Range*.—From the lower Potomac and Ohio valleys south to southern Georgia and the Gulf coast (except Florida) and west to eastern Texas.

3: Louisiana (Buras, 1; Holly Springs, 1); Texas (Waring, 1).

**\*Corvus corone pascuus** Coues. FLORIDA CROW.

*Corvus americanus* var. *floridanus* (not *Corvus floridanus* Bonaparte, 1826) Baird, Rep. Pac. R. R. Surv., 9, p. 568, 1858—southern Florida (type from Fort Dallas in U. S. National Museum).

*Corvus americanus pascuus* Coues, Auk, 16, p. 84, 1899—new name for *C. a. floridanus* Baird, preoccupied; Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 269, 1904—Florida (monog., full bibliog.).

*Corvus brachyrhynchos pascuus* Meinertzhagen, Nov. Zool., 33, p. 89, 1926—(monog.).

*Range*.—Peninsula of Florida.

9: Florida (Fort Myers, 5; Town Point, 2; Pine Island, 1; New River, 1).

**\*Corvus corone hesperis** Ridgway. WESTERN CROW.

*Corvus americanus hesperis* Ridgway, Man. N. Am. Bds., p. 362, 1887—"Western United States" (type from Fort Klamath, Oregon, in U. S. National Museum); idem, Bull. U. S. Nat. Mus., 50, Part 3, p. 270, 1904 (monog., full bibliog.).

*Corvus brachyrhynchos hesperis* Meinertzhagen, Nov. Zool., 33, p. 89, 1926 (monog.); Brooks and Swarth, Pac. Coast Avifauna, 17, p. 80, 1925—southern British Columbia; Grinnell, Univ. Calif. Pub. Zool., 32, p. 148, 1928—Lower California.

*Range*.—Western North America, from central British Columbia, southern Saskatchewan, and Montana south to northern Lower California and central New Mexico.

10: Washington (Clallam County, 1); Oregon (Portland, 1); California (Monterey, 4; San Geronimo, 1; Nicasio, 1; Los Angeles County, 1); New Mexico (Las Vegas, 1).

<sup>1</sup>*Corvus corone paulus* Howell: Very similar to *C. c. brachyrhynchos*, but decidedly smaller; bill much more slender and depressed. The validity of this race has been questioned.

**\*Corvus ossifragus caurinus Baird.<sup>1</sup> NORTHWESTERN CROW.**

*Corvus caurinus* Baird, Rep. Pac. R. R. Surv., 9, p. 569, 1858—northwestern coast of America (type from Fort Steilacoom, Washington, in U. S. National Museum); Brooks, Auk, 34, p. 42, 1917—Chilliwack District, British Columbia; Brooks and Swarth, Pac. Coast Avifauna, 17, p. 81, 1925—coastal region of British Columbia.

*Corvus americanus caurinus* Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 272, 1904 (monog., full bibliog.).

*Corvus brachyrhynchos caurinus* Meinertzhagen, Nov. Zool., 33, p. 90, 1926 (monog.).

*Corvus mexicanus caurinus* Meise, Journ. Orn., 76, pp. 15, 26, 1928 (crit.).

**Range.**—Northwest coast of North America, from Kadiak Island and Kukak Bay, Alaska, to Puget Sound, Washington.

1: Washington (Clallam County, 1).

**\*Corvus ossifragus ossifragus Wilson. FISH CROW.**

*Corvus ossifragus* Wilson, Amer. Orn., 5, p. 27, pl. 37, fig. 2, 1812—Great Egg Harbour, New Jersey (type in Peale's Museum); Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 273, 1904—Atlantic and Gulf coast districts of United States (monog., full bibliog.); Pemberton and Kirn, Condor, 25, p. 65, 1923—Orange, Texas.

*Corvus mexicanus ossifragus* Meinertzhagen, Nov. Zool., 33, p. 88, 1926 (monog.).

*Coloeus ossifragus* Sharpe, Cat. Bds. Brit. Mus., 3, p. 29, 1877—Atlantic coast of North America.

**Range.**—Atlantic and Gulf coast districts of the United States, from the lower Hudson Valley and the shores of Long Island Sound south to Florida, Louisiana (inland to the base of the Blue Ridge Mountains), and Texas (Orange).

14: Mississippi (Vicksburg, 1); Florida (New River, 3; Palm Beach, 1; Fort Myers, 1; Santa Rosa Island, 1; Enterprise, 1; East Pass, 1; Wilson, 2; Pilot Town, 3).

**\*Corvus ossifragus imparatus Peters.<sup>2</sup> MEXICAN CROW.**

*Corvus imparatus* Peters, Proc. Biol. Soc. Wash., 42, p. 123, 1929—Rio La Cruz, Tamaulipas, Mexico (type in Museum of Comparative Zoology,

<sup>1</sup>*Corvus ossifragus caurinus* Baird, while usually associated specifically with the American Crow, does not seem to be closely related to it in spite of superficial resemblance. Habits and call-note are described as being very different and more like those of the Fish Crow. Moreover, Brooks believes that *C. o. caurinus* and *C. c. hesperis* breed side by side on Sumas prairie along the lower Fraser River in southern British Columbia, and is inclined to accord it specific rank. Notwithstanding its widely separated range, *C. caurinus* has so much in common with the Fish Crow that Meise's proposition to link it with *C. ossifragus* seems to be the most satisfactory arrangement.

<sup>2</sup>*Corvus ossifragus imparatus* Peters, while easily distinguishable by smaller size and much more glossy plumage, is clearly conspecific with the North American Fish Crow.

Cambridge, Mass.); van Rossem, Trans. San Diego Soc. N. H., 6, p. 270, 1931—Tésia and Agiobampo, Sonora (crit.).

*Corvus mexicanus* (not of Gmelin) Schlegel, Bijdr. Dierk., Afl. 8, p. 11, pl. 1, fig. 25, 1859—Mexico (crit.); Lawrence, Mem. Bost. Soc. N. H., 2, p. 283, 1874—Mazatlan and Colima (habits); Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 488, 1887—western Mexico (Mazatlan and San Blas); Jouy, Proc. U. S. Nat. Mus., 16, p. 782, 1893—Tampico, Tamaulipas; Richmond, l.c., 18, p. 630, 1896—Alta Mira, Tamaulipas; Nelson, N. Amer. F., 14, p. 50, 1899—Maria Madre, Tres Marias Islands (straggler); Lantz, Trans. Kansas Acad. Sci., 16, p. 222, 1899—Altata, Sinaloa; Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 275, 1904—Mexico (monog., full bibliog.); Miller, Bull. Amer. Mus. N. H., 21, p. 359, 1905—Escuinapa and Juanna Gomez River, Sinaloa; Phillips, Auk, 28, p. 82, 1911—Santa Leonor and Rio Cruz, Tamaulipas.

*Corvus mexicanus mexicanus* Meinertzhagen, Nov. Zool., 33, p. 87, 1926—Sonora (Presidio, Mazatlan), Tepic, Nuevo Leon, and Tamaulipas (Tampico) (crit.); McLellan, Proc. Calif. Acad. Sci., (4), 16, p. 50, 1927—San Blas and Blanca de Tierra Point, Nayarit.

*Corone mexicana* Sharpe, Cat. Bds. Brit. Mus., 3, p. 36, 1877—Mexico.

*Range.*—The greater part of Mexico, south to Colima, San Luis Potosi, and Tamaulipas (Tampico).

9: Nuevo Leon (Hacienda de los Escobas, 1); Nayarit (San Blas, 1); Tamaulipas (Tampico, 7).

### \**Corvus ossifragus palmarum* Württemberg.<sup>1</sup> PALM CROW.

*Corvus palmarum* Württemberg, Erste Reise N. Amer., p. 68, 1835—vicinity of Cibao Mountains, Dominican Republic (type in coll. Württemberg, now in Stuttgart Museum ?); Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 276, 1904—Island of Haiti (monog., full bibliog.); Verrill, Proc. Acad. Nat. Sci. Phila., 61, p. 361, 1909—Dominican Republic.

*Corvus solitarius* (Württemberg MS.) Hartlaub, Naumannia, 2, Heft 2, p. 55, 1852—"die Hochebenen östlich vom Mirebalais, die Escabobas . . . der Loma de S. Juan auf Haiti" (new name for *C. palmarum*); Cory, Bds. Haiti and San Dom., p. 75, 1885—Gantier, Haiti; idem, Auk, 3, p. 229, 1886—Haiti and Santo Domingo; idem, Bds. W. Ind., p. 116, 1889—Haiti; Cherrie, Field Col. Mus., Orn. Ser., 1, p. 17, 1896—Maniel, Santo Domingo.

*Corvus brachyrhynchos palmarum* Meinertzhagen, Nov. Zool., 33, p. 90, 1926—Haiti and Santo Domingo (crit.).

*Corvus palmarum palmarum* Wetmore and Swales, Bull. U. S. Nat. Mus., 155, p. 328, 1931—Haiti and Santo Domingo (crit., habits).

*Microcorax solitarius* Sharpe, Cat. Bds. Brit. Mus., 3, p. 49, 1877—Santo Domingo.

<sup>1</sup> I quite agree with Meise (Journ. Orn., 76, p. 27, 1928) that the Palm Crow is conspecific with the Fish Crow and has no relationship whatever to *C. corone*. Certain specimens are indistinguishable from North American birds save for their decidedly slenderer bills.

*Range*.—Island of Haiti, Greater Antilles.

9: Haiti (Maniel, 5; Gantier, 2; Trou Caiman, forty miles west of Port-au-Prince, 2).

**\*Corvus ossifragus minutus** Gundlach.<sup>1</sup> LESSER CUBAN CROW.

*Corvus minutus* Gundlach, Journ. Bost. Soc. N. H., 6, p. 315, 1852—Cuba (type in Gundlach Museum, Havana ?); idem, Journ. Orn., 4, p. 97, 1856—Cienfuegos, south coast of Cuba; idem, Journ. Orn., 22, p. 139, 1874—Cuba; idem, Orn. Cub., p. 105, 1876—Cuba; Cory, Auk, 3, p. 229, 1886—Cuba; idem, Bds. W. Ind., p. 116, 1889—Cuba; Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 276, 1904—Cuba; Barbour, Mem. Nutt. Orn. Cl., 6, p. 106, 1923—Cuba (distribution).

*Corvus brachyrhynchos minutus* Meinertzhagen, Nov. Zool., 33, p. 91, 1926—Cuba and "Isle of Pines" (crit.).

*Range*.—Island of Cuba, Greater Antilles.

1: Cuba (westernmost part of the island, 1).

**\*Corvus jamaicensis** Gmelin. JAMAICAN CROW.

*Corvus jamaicensis* Gmelin, Syst. Nat., 1, (1), p. 367, 1788—based on Brisson, Buffon, Sloane, etc., Jamaica; Gosse, Bds. Jamaica, p. 209, 1847—Jamaica; idem, Illust. Bds. Jamaica, pl. 52, 1849; March, Proc. Acad. Nat. Sci. Phila., 1863, p. 300—Jamaica (habits); Cory, Auk, 3, p. 228, 1886—Jamaica; idem, Bds. W. Ind., p. 115, 1889—Jamaica (monog.); Scott, Auk, 10, p. 178, 1893—Egg Hill, near Priestman's River, Jamaica; Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 277, 1904—Jamaica (monog.); Meinertzhagen, Nov. Zool., 33, p. 95, 1926—Jamaica (monog.).

*Microcorax jamaicensis* Sharpe, Cat. Bds. Brit. Mus., 3, p. 48, 1877—Jamaica.

*Range*.—Island of Jamaica, Greater Antilles.

2: Jamaica (near Priestman's River, 2).

**\*Corvus leucognaphalus nasicus** Temminck.<sup>2</sup> CUBAN CROW.

*Corvus nasicus* Temminck, Nouv. Rec. Pl. Col., livr. 70, pl. 413, 1826—Cuba (type in Leiden Museum); Gundlach, Journ. Orn., 22, p. 137, 1874—Cuba (habits); idem, Orn. Cub., p. 104, 1876—Cuba; Cory, Auk, 3, p. 229, 1886—Cuba (monog.); idem, Bds. W. Ind., p. 116, 1889—Cuba (monog.); idem, Cat. W. Ind. Bds., pp. 110, 146, 1892—Cuba, Isle of Pines, and Grand Caicos (Bahamas); Chapman, Bull. Amer. Mus. N. H., 4, p. 303, 1892—San Pablo, Cuba; Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 278, 1904—Cuba (monog., full bibliog.); Bangs and Zappey, Amer. Natur., 39, p. 209, 1905—La Vega and Pasadita, Isle of Pines; Riley, in Shattuck, The Bahama Islands, p. 365, 1905—Grand Caicos;

<sup>1</sup> This is but a slightly differentiated race distinguishable by its duller, less glossy coloration.

<sup>2</sup> In structural characters this form is identical with *C. leucognaphalus* and differs merely by the gray, instead of white, base to the feathers of the body plumage.

Todd, Ann. Carnegie Mus., 10, p. 255, 1916—Caleta Grande, Caleta Cocodrilos, Jacksonville, and Pasadita, Isle of Pines (eggs descr.); Barbour, Mem. Nutt. Orn. Cl., 6, p. 106, 1923—Cuba; Meinertzhagen, Nov. Zool., 33, p. 94, 1926—Cuba and Isle of Pines (monog.).

*Corvus americanus* (not of Audubon) Lembeye, Av. Isla de Cuba, p. 65, 1850—Cuba.

*Microcorax nasicus* Sharpe, Cat. Bds. Brit. Mus., 3, p. 49, 1877—Cuba.

*Range*.—Island of Cuba and Isle of Pines, Greater Antilles, and Grand Caicos, Bahama Islands.<sup>1</sup>

8: Isle of Pines (La Vega, 2); Cuba (Yateras, 1; unspecified, 1); Bahamas (Grand Caicos, 4).

**\**Corvus leucognaphalus leucognaphalus* Daudin. WHITE-NECKED CROW.**

*Corvus leucognaphalus* Daudin, Traité d'Orn., 2, p. 231, 1800—Porto Rico (type in Paris Museum); Cory, Bds. Haiti and San Dom., p. 74, 1885—Gantier and Almercen, Santo Domingo; idem, Auk, 3, p. 227, 1886—Santo Domingo and Porto Rico (diag.); idem, Bds. W. Ind., p. 114, 1889—Santo Domingo and Porto Rico; Cherrie, Field Col. Mus., Orn. Ser., 1, p. 17, 1896—Santo Domingo; Verrill, Proc. Acad. Nat. Sci. Phila., 61, p. 361, 1909—San Lorenzo, Santo Domingo; Meinertzhagen, Nov. Zool., 33, p. 94, 1926—Haiti and Porto Rico (monog.); Wetmore, N. Y. Acad. Sci., Surv. Porto Rico and Virgin Is., 9, Part 4, p. 479, 1927—Porto Rico (crit.); Moltoni, Atti Soc. Ital. Sci. Nat., 68, p. 321, 1929—San Juan, Santo Domingo; Wetmore and Swales, Bull. U. S. Nat. Mus., 155, p. 325, 1931—Island of Haiti (crit., habits).

*Corvus erythrophthalmus* Württemberg, Erste Reise N. Amer., p. 68, 1835—vicinity of Cibao Mountains, Dominican Republic (type in Württemberg Coll., now in Stuttgart Museum ?); Hartlaub, Naumannia, 2, Heft 2, p. 54, 1852—"Haiti"; Bonaparte, Compt. Rend. Acad. Sci. Paris, 37, p. 829, 1853—Saint-Domingue (diag.).

*Corvus dominicensis* Cory, Auk, 3, p. 228 (in text), 1886—Santo Domingo (name tentatively proposed).

*Corvus leucognaphalus leucognaphalus* Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 278, 1904—Porto Rico (monog., full bibliog.).

*Corvus leucognaphalus erythrophthalmus* Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 279, 1904—Haiti (monog., full bibliog.); Peters, Bull. Mus. Comp. Zool., 61, p. 416, 1917—Rio San Juan and Monte Cristi, Dominican Republic.

*Microcorax leucognaphalus* Sharpe, Cat. Bds. Brit. Mus., 3, p. 49, 1877—Porto Rico and Santo Domingo (monog.).

*Range*.—Islands of Porto Rico<sup>2</sup> and Haiti, Greater Antilles; extinct on St. Croix (bones found in kitchen-middens).

<sup>1</sup> The Grand Caicos birds appear to be inseparable from *C. nasicus*, of Cuba.

<sup>2</sup> A fossil species was recently described from Porto Rico as *Corvus pumilis* Wetmore (Proc. Biol. Soc. Wash., 33, p. 81, 1920; Bull. Amer. Mus. N. H., 46, p. 327, 1922).

19: island of Haiti (Catare, 4; Maimon, 2; Magua, 1; Samaná, 2; Almercen, 10).

**Corvus frugilegus frugilegus** Linnaeus. ROOK.

*Corvus frugilegus* Linnaeus, Syst. Nat., 10th ed., 1, p. 105, 1758—"Europa," restr. type locality, Sweden; Helms, Vidensk. Medd. Naturhist. Foren., 1904, p. 111—Kangarsik, near Cape Dan, Greenland.

*Range*.—Extralimital. Rare straggler on the east coast of Greenland (one record from Kangarsik).

Genus **NUCIFRAGA** Brisson

*Nucifraga* Brisson, Orn., 1, p. 30; 2, p. 58, 1760—type, by tautonymy, "*Nucifraga*"=*Corvus caryocatactes* Linnaeus.

*Caryocatactes* Cuvier, Règne Anim., 1, p. 399, Dec., 1816—type, by monotypy, *Corvus caryocatactes* Linnaeus.

*Picicorvus* Bonaparte, Consp. Gen. Av., 1, p. 384, 1850—type, by monotypy, *Corvus columbianus* Wilson.

**\*Nucifraga columbiana** (Wilson). CLARKE'S NUTCRACKER.

*Corvus columbianus* Wilson, Amer. Orn., 3, p. 29, pl. 20, fig. 3, 1811—Columbia River (type in Peale's Museum).

*Corvus megonyz* Wagler, Syst. Av., 1, fol. 21, Genus *Corvus*, sp. 20, 1827—new name for *Corvus columbianus* Wilson.

*Nucifraga columbiana* Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 281, 1914 (monog., full bibliog.); Grinnell, Univ. Calif. Pub. Zool., 32, p. 148, 1928—Sierra San Pedro Mártir, Lower California.

*Range*.—Breeds in western North America, from southern Alaska, Alberta, and western South Dakota south to New Mexico, Arizona, and northern Lower California (Sierra San Pedro Mártir); casual in western Nebraska and east to Missouri and Arkansas; accidental in Wisconsin and Iowa.

22: Washington (Clallam Bay, 2; Mount Hood, 1); Oregon (Cascade Mountains, 2); Idaho (Troy, 2); Colorado (Ward, 3; Sunset, 2; Laramie County, 1); Montana (Columbia Falls, 5; Townsend, 1); California (Big Bear Valley, 2; San Bernardino Mountains, 1).

Genus **CYANOCEPHALUS** Bonaparte

*Gymnorhinus* (not *Gymnorhina* Gray, 1840) Wied, Reise in Nord-Amerika, 2, p. 21, 1841—type, by monotypy, *Gymnorhinus cyanocephalus* Wied.

*Cyanocephalus* Bonaparte, Oss. Stat. Zool. Eur. Vert., p. 17, 1842—type, by monotypy, *Gymnorhinus cyanocephalus* Wied.

*Gymnokitta* Bonaparte, Consp. Gen. Av., 1, p. 382, 1850—type, by monotypy, *Gymnorhinus cyanocephalus* Wied.

*Gymnocitta* Coues, Bull. Nutt. Orn. Club, 5, p. 98, 1880—emendation.

**\**Cyanocephalus cyanocephalus* (Wied). PIÑON JAY.**

*Gymnorhinus cyanocephalus* Wied, Reise in Nord-Amerika, 2, p. 22, 1841—junction of Marias and Yellowstone rivers, Montana (type now in the American Museum of Natural History, New York).

*Cyanocephalus wiedi* Bonaparte, Oss. Stat. Zool. Eur. Vert., p. 17, 1842—new name for *Gymnorhinus cyanocephalus* Wied.

*Cyanocorax cassinii* McCall, Proc. Acad. Nat. Sci. Phila., 5, p. 216, 1851—Santa Fé, New Mexico (type formerly in the Academy of Natural Sciences, Philadelphia).

*Cyanocephalus cyanocephalus* Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 284, 1904 (monog., full bibliog.); Grinnell, Univ. Calif. Pub. Zool., 32, p. 148, 1928—Sierra Juárez and Sierra San Pedro Mártir, Lower California.

*Range*.—Breeds in Transition and Upper Austral zones from central Washington, Idaho, and central Montana south to northern Lower California, Arizona, New Mexico, and western Texas, and from the Sierra-Cascade ranges east to the eastern side of the Rocky Mountains; in winter casually on the coast of California, in eastern Nebraska and Kansas.

6: Wyoming (Hat Creek, 2); Colorado (Rocky Ford, 1; Morgan County, 1); Nevada (Pyramid Mountains, 1); California (Pacific Grove, 1).

Subfamily GARRULINAE

Genus *PICA* Brisson

*Pica* Brisson, Orn., 1, p. 30; 2, p. 35, 1760—type, by tautonymy, "*Pica*" = *Corvus pica* Linnaeus.

*Cleptes* Gambel, Journ. Acad. Nat. Sci. Phila., (2), 1, p. 46, 1847—type, by monotypy, *Corvus hudsonius* Sabine.

**\**Pica pica hudsonia* (Sabine). AMERICAN MAGPIE.**

*Corvus hudsonius* Sabine, in Franklin, Narr. Journ. Polar Sea, p. 671, 1823—Cumberland House, Hudson Bay [Saskatchewan].

*Pica pica hudsonia* Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 287, 1904 (monog., full bibliog.); Grinnell, Pac. Coast Avifauna, 11, p. 96, 1915—California.

*Range*.—Boreal and Transition zones of North America from the Alaska Peninsula, middle Yukon, central Alberta, central Saskatchewan, and southern Manitoba south to northern Arizona and New Mexico, and from eastern Washington and the eastern slope of



the Sierra Nevada to western North Dakota and New Mexico. Casual in Iowa, Wisconsin, Illinois, Michigan, Ontario, and the Hudson Bay region; accidental in Quebec.

15: Alaska (Funny River, Kenai Peninsula, 1); British Columbia (Okanagan, 1); Montana (South Butte, 2; Townsend, 1); Colorado (Windsor, 2; Yampa, 1; Rocky Ford, 1; Routt County, 1; Rio Blanco County, 1; unspecified, 1); Arizona (Phoenix, 2); New Mexico (Las Vegas, 1).

**\**Pica pica nuttalli* Audubon.<sup>1</sup> YELLOW-BILLED MAGPIE.**

*Pica nuttalli*(i) Audubon, Birds America (folio), 4, pl. 362, fig. 1, 1836; idem, Orn. Biog., 4, p. 450, 1838—Santa Barbara, California (type in U. S. National Museum); Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 291, 1904 (monog., full bibliog.); Grinnell, Pac. Coast Avifauna, 11, p. 96, 1915—California.

*Range*.—Upper and Lower Austral zones of California west of the Sierra Nevada, from Tehama County to Ventura and Kern counties, chiefly in the Sacramento and San Joaquin valleys.

3: California (Yuba County, 1; Marysville, 1; Folsom City, 1).

**Genus CALOCITTA Gray**

*Calocitta* Gray, List Gen. Bds., 2nd ed., p. 50, 1841—type, by orig. desig.,  
*Pica bullockii* Wagler=*Pica formosa* Swainson.

*Cyanurus* (not of Swainson, 1832) Bonaparte, Consp. Gen. Av., 1, p. 380, 1850—type, by subs. desig. (Sharpe, Cat. Bds. Brit. Mus., 3, p. 88, 1877),  
*Pica formosa* Swainson.

*Callicitta* Cabanis, Mus. Hein., 1, p. 225, Oct., 1851—emendation of *Calocitta* Gray.

**\**Calocitta formosa colliei* (Vigors).<sup>2</sup> COLLIE'S MAGPIE-JAY.**

*Pica colliei* Vigors, Zool. Journ., 4, No. 15 (Oct., 1828—Jan., 1829), p. 353, pl. 12, 1829—San Blas, Nayarit, Mexico (type in coll. Zoological Society of London, now in British Museum); idem, in Zool. Voy. "Blossom," p. 22, pl. 7, 1839—San Blas, Nayarit, and Mazatlan, Sinaloa.

*Pica bernettii* J. E. Gray, in Griffith and Pidgeon, Cuvier's Anim. Kingd., Aves, 2, pl. facing p. 334, "March, 1829"—no locality given (type in British Museum).

<sup>1</sup> *Pica pica nuttalli* Audubon: This Californian representative of the American Magpie is easily distinguished by the yellow bill, yellow orbital region, and smaller size.

<sup>2</sup> The wide range of individual variation in the coloration of the throat and chest is so suggestive of its close relationship to *C. formosa* that, in spite of the differently shaped crest, we do not hesitate to associate the two species in a single specific unit.

## 12 FIELD MUSEUM OF NATURAL HISTORY—ZOOLOGY, VOL. XIII

*Calocitta elegans* Finsch, Abhandl. Naturw. Ver. Bremen, 1, p. 335, July, 1870—Mazatlan, Sinaloa (type in Bremen Museum;=juv.).

*Calocitta collieri* Finsch, Abhandl. Naturw. Ver. Bremen, 1, p. 334, 1870—Mazatlan, Sinaloa; Lawrence, Mem. Bost. Soc. N. H., 2, p. 284, 1874—Mazatlan (habits); Sharpe, Cat. Bds. Brit. Mus., 3, p. 89, 1877—western Mexico; Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 507, 1887—Mazatlan, Guanajuato, and Guadalajara, Mexico; Jouy, Proc. U. S. Nat. Mus., 16, p. 782, 1893—Barranca Ibarra, Jalisco (habits); Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 294, 1904—western Mexico (monog., full bibliog.); Miller, Bull. Amer. Mus. N. H., 21, p. 358, 1905—Elota and Escuinapa, Sinaloa (crit., descr. of juv.); idem, l.c., 22, p. 170, 1906—San Juan and Sayupa, northwestern Durango; McLellan, Proc. Calif. Acad. Sci., (4), 16, p. 50, 1927—Labrados, Sinaloa, and Jalcocotan, Nayarit; van Rossem, Trans. San Diego Soc. N. H., 6, p. 270, 1931—Chinobampo, Guirocoba, and San Javier, Sonora.

*Calocitta calliei* (sic) Lantz, Trans. Kansas Acad. Sci., 16, p. 222, 1899—Culiacan, Sinaloa.

**Range.**—Western Mexico, from southern Sonora and western Chihuahua south to Jalisco; once recorded from Guanajuato.

6: Mexico, Nayarit (San Blas, 1); Jalisco (Tuxpan, 5).

### \**Calocitta formosa formosa* (Swainson). BULLOCK'S MAGPIE-JAY.

*Pica formosa* Swainson, Philos. Mag., (n.s.), 1, p. 437, June, 1827—Temascaltepec, Mexico (type in Bullock Collection).

*Garrula gubernatrix* Temminck, Nouv. Rec. Pl. Col., livr. 73, pl. 436, June 30, 1827—Mexico (type in Leiden Museum; cf. Schlegel, Mus. Pays-Bas, livr. 9, Coraces, p. 43, 1867).

*Pica bullockii* Wagler, Syst. Av., 1, fol. 21, Genus *Pica*, sp. 4, 1827—Mexico (type in Leadbeater Collection).

*Calocitta formosa* Sclater, Proc. Zool. Soc. Lond., 27, p. 381, 1859—Oaxaca (crit.); Lawrence, Mem. Bost. Soc. N. H., 2, p. 285, 1874—Colima, Manzanilla Bay, and Rio de la Armeria; idem, Bull. U. S. Nat. Mus., 4, p. 24, 1876—Juchitan and Tehuantepec City, Oaxaca; Sharpe, Cat. Bds. Brit. Mus., 3, p. 88, 1877—part, Oaxaca and San Juan del Rio; Salvin, Proc. Zool. Soc. Lond., 1883, p. 423—Acapulco, Guerrero; Ferrari-Perez, Proc. U. S. Nat. Mus., 9, p. 153, 1886—Chietla, Puebla; Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 508, 1887—part, Mexican references and localities.

*Calocitta formosa formosa* Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 295, 1904—southwestern Mexico, from Colima to Oaxaca (monog., full bibliog.); Bangs and Peters, Bull. Mus. Comp. Zool., 68, p. 404, 1928—Chivelá and Tapanatepec, Oaxaca.

**Range.**—Southwestern Mexico, from Colima, Michoacan, and Puebla south to Guerrero and Oaxaca.

8: Guerrero (Apipiluluca, 6); Oaxaca (San Gerónimo, 1); "Mexico" (unspecified, 1).

\**Calocitta formosa azurea* Nelson. NELSON'S MAGPIE-JAY.

*Calocitta formosa azurea* Nelson, Auk, 14, p. 55, 1897—Huehuetan, Chiapas, Mexico (type in U. S. National Museum); Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 296, 1904—part, Chiapas and western Guatemala; Dearborn, Field Mus. Nat. Hist., Orn. Ser., 1, p. 109, 1907—part, Mazatenango, Patulul, and San José, western Guatemala (crit.).

*Calocitta formosa* (not *Pica formosa* Swainson) Selater and Salvin, Ibis, 1859, p. 22—part, Pacific coast of Guatemala; Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 509, 1887—part, western Guatemala; Lantz, Trans. Kansas Acad. Sci., 16, p. 222, 1899—Naranjo, Guatemala.

*Range*.—Pacific side of Guatemala and extreme southern Mexico, in State of Chiapas (Huehuetan).<sup>1</sup>

6: Guatemala (San José, Escuintla, 1; near Patulul, 2; Mazatenango, 3).

\**Calocitta formosa pompata* Bangs.<sup>2</sup> COSTA RICAN MAGPIE-JAY.

*Calocitta formosa pompata* Bangs, Proc. New Engl. Zool. Cl., 4, p. 102, 1914—Bolson, northwestern Costa Rica (type in Museum of Comparative Zoology, Cambridge, Mass.); idem, Bull. Mus. Comp. Zool., 70, p. 424, 1930—Bolson (note on type).

*Calocitta formosa* (not *Pica formosa* Swainson) Selater and Salvin, Ibis, 1859, p. 22—part, Atlantic side of Guatemala; Salvin, Ibis, 1870, p. 114—Costa Rica; Sharpe, Cat. Bds. Brit. Mus., 3, p. 88, 1877—part, Honduras and Nicaragua; Nutting, Proc. U. S. Nat. Mus., 5, p. 393, 1882—La Palma de Nicoya, Costa Rica; idem, l.c., 6, pp. 374, 384, 392, 1883—San Juan del Sur, Sucuyá, and Ometépe, Nicaragua; Zeledón, Anal. Mus. Nac. Costa Rica, 1, p. 113, 1887—Nicaragua and Costa Rica (Bagaces and Liberia); Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 508, 1887—part, Motagua Valley (Gualan), Guatemala, Honduras, Nicaragua, and Costa Rica; Underwood, Ibis, 1896, p. 437—Miravalles, Costa Rica.

*Calocitta bullockii* (not *Pica bullockii* Wagler) Selater, Proc. Zool. Soc. Lond., 26, p. 358, 1858—Comayagua, Honduras.

*Cyanurus gubernatrix* (not *Garrula gubernatrix* Temminck) Taylor, Ibis, 1860, p. 113—Tigre Island and plain of Comayagua, Honduras.

<sup>1</sup> The series from western Guatemala agrees with two from Chiapas in the strong bluish upper parts and bright flax-flower blue occiput. The dimensions are approximately the same, the wing, in adult males, ranging from 191 to 208, in females from 180 to 185 mm.

<sup>2</sup> *Calocitta formosa pompata* Bangs: Agreeing with *C. f. azurea* in the absence of a blackish malar streak and in the extent of the white tail tips, but dorsal surface decidedly paler, more grayish, and occiput likewise paler, light cadet-blue instead of flax-flower blue; size very slightly smaller.

This seems to be a fairly well-marked race, though single specimens sometimes approach *azurea*. Birds from the Motagua Valley, on the Atlantic side of Guatemala, and two skins from "San Salvador" are decidedly referable to the present form, being much more grayish above and paler blue on the occiput than the series of *azurea* from the Pacific slope.

*Calocitta formosa azurea* (not of Nelson) Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 296, 1904—part, Guatemala ("Rio Managua"=Motagua), Honduras, Nicaragua, and Costa Rica; Dearborn, Field Mus. Nat. Hist., Orn. Ser., 1, p. 109, 1907—part, El Rancho and Gualan, Guatemala, also Nicaraguan and Costa Rican localities (crit.); Carriker, Ann. Carnegie Mus., 6, p. 774, 1910—Bolson, Miravalles, Tenorio, Bebedero, and Bagaces, Costa Rica; Rendahl, Ark. Zool., 12, No. 8, p. 28, 1919—Masaya and Muyogalpa (Ometépe), Nicaragua.

*Range*.—Atlantic side of Guatemala (Motagua basin), El Salvador, Honduras (Tigre Island, plain of Comayagua), Nicaragua, and Costa Rica.

20: Guatemala (El Rancho, Zacapa, 1; Gualan, Zacapa, 1); El Salvador (San Salvador, 2); Nicaragua (San Rafael del Norte, 2; San Emilio, Lake Nicaragua, 1; San Gerónimo, Chinandega, 9); Costa Rica (Orosi, 1; Las Cañas, 3).

### Genus **PSILORHINUS** Rüppell

*Psilorhinus* Rüppell, Mus. Senckenb., 2, Heft 2, p. 188, 1837—type, by monotypy, *Psilorhinus mexicanus* Rüppell.

#### **\*Psilorhinus morio** (Wagler). BROWN JAY.

*Pica morio* Wagler, Isis, 1829, p. 751—part, descr. of "mas adult" and "mas juv.," Mexico (type in Berlin Museum).

*Pica fuliginosa* Lesson, Traité d'Orn., livr. 5, p. 333, 1830—part, descr. of "adult," Mexico (type lost; cf. Pucheran, Rev. Mag. Zool., (2), 5, p. 550, 1853).

*Psilorhinus morio* Cabanis, Mus. Hein., 1, p. 226, 1851—Jalapa (part, crit.); Selater, Proc. Zool. Soc. Lond., 24, p. 300, 1856—Cordoba, Vera Cruz (crit., variation in color of bill); idem, l.c., 27, p. 365, 1859—Jalapa; Selater and Salvin, l.c., 1869, p. 363—Cordoba and Jalapa (crit.); Baird, Rep. Pac. R. R. Surv., 9, p. 592, 1858—Boquilla, San Diego, and China, Nuevo Leon; Sumichrast, Mem. Bost. Soc. N. H., 1, p. 554, 1869—Vera Cruz (altitudinal range); Baird, Brewer, and Ridgway, Hist. N. Amer. Bds., Land Birds, 2, p. 304, 1875—part, Cordoba and Mirador, Vera Cruz; Sharpe, Cat. Bds. Brit. Mus., 3, p. 139, 1877—Orizaba, Mexico; Ferrari-Perez, Proc. U. S. Nat. Mus., 9, p. 153, 1886—Jalapa and Plan del Rio, Vera Cruz; Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 505, 1887—Nuevo Leon (Boquilla, China), Vera Cruz (Cordoba, Jalapa, Mirador, Plan del Rio), and "Chiapas (Guichicovi)"; Stone, Proc. Acad. Nat. Sci. Phila., 1891, pp. 94, 96—from Tehuantepec north to the Rio Grande (crit.); Richmond, Proc. U. S. Nat. Mus., 18, p. 630, 1896—Alta Mira, Tamaulipas; Chapman, Bull. Amer. Mus. N. H., 10, p. 31, 1898—Jalapa, Vera Cruz.

*Psilorhinus morio morio* Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 299, 1904—"northeastern" Mexico, in states of Nuevo Leon, Tamaulipas, San Luis Potosi, "Hidalgo," and Vera Cruz (monog.); Phillips, Auk,

28, p. 82, 1911—Alta Mira, Santa Leonor, Rio Cruz, and Guiaves, Tamaulipas (crit.).

*Psilorhinus morio fuliginosus* Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 300, 1904—"southeastern" Mexico, in humid districts of San Luis Potosi, Hidalgo (?), Vera Cruz (Pasa Nueva, Buena Vista), "Chiapas (Guichicovi)," and Tabasco (Montecristo); Bangs and Peters, Bull. Mus. Comp. Zool., 67, p. 487, 1927—Presidio, Vera Cruz.

*Psilorhinus mexicanus* Rüppell, Mus. Senckenb., 2, p. 189, 1837—"Tamalipas," Mexico (part, supposed young received from Lindheimer).

**Range.**—Eastern Mexico, from the Rio Grande in Nuevo Leon and Tamaulipas south through Vera Cruz to northern Tabasco (Montecristo).<sup>1</sup>

11: Nuevo Leon (Hacienda de las Escobas, 1); Tamaulipas (Villagran, 1; Tampico, 7); Vera Cruz (Achtal, 1); Mexico ("City of Mexico," 1).

**\**Psilorhinus mexicanus mexicanus* Rüppell.<sup>2</sup> WHITE-TIPPED BROWN JAY.**

*Psilorhinus mexicanus* Rüppell, Mus. Senckenb., 2, Heft 2, p. 189, pl. 11, fig. 2, 1837—"Tamalipas," Mexico (type in Frankfurt Museum; cf. Hartert, Kat. Vogelsamml. Mus. Senckenb. Naturf. Ges., p. 82, 1891); Sharpe, Cat. Bds. Brit. Mus., 3, p. 140, 1877—part, Mexico; Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 506, 1887—part, Mexico ("Tamaulipas" and Mirador); Stone, Proc. Acad. Nat. Sci. Phila., 1891, p. 96—part, southern Mexico (crit.).

*Pica morio* Wagler, Isis, 1829, p. 751—part, descr. of "foemina," Mexico.

*Pica fuliginosa* Lesson, Traité d'Orn., livr. 5, p. 333, 1830—part, descr. of "jeune âge," Mexico.

*Psilorhinus morio* Cabanis, Mus. Hein., 1, p. 226, 1851—Jalapa (part, crit.); Baird, Brewer, and Ridgway, Hist. N. Amer. Bds., Land Birds, 2, p. 304,

<sup>1</sup> It appears to me of no practical advantage to split the Brown Jay into two races, *P. m. morio* and *P. m. fuliginosus*. The coloration of the posterior under parts varies to such an extent in the same locality that the assignation of individual specimens to either form becomes quite problematical. It would seem, however, as if the dark-bellied type was rather more predominant in the southern parts of Vera Cruz.

<sup>2</sup> Status and relationship of this form are uncertain. It resembles the white-bellied stage of *P. morio* in coloration, but differs by having all rectrices (except the central pair) broadly tipped with white. The bird is very rare in collections, and the ten or twelve recorded specimens have all been taken in the range of *P. morio*, sometimes even at the same place as the plain-tailed "species," as at Mirador and Jalapa, Vera Cruz. Furthermore, the type of *P. mexicanus* is said to be from Tamaulipas, where, otherwise, only *P. morio* is known to occur. Both are listed by Ridgway from Montecristo, Tabasco, and by Lantz (Trans. Kansas Acad. Sci., 16, p. 222, 1899) from Rinconada, Vera Cruz. All these localities, it will be noted, are in that section of Mexico where intergradation to *P. m. cyano-genys* might be expected. Although intermediates between the dark-tailed and the white-tipped forms are lacking, I would not be surprised if the so-called *P. mexicanus* turned out to be a mutant of *P. morio* rather than a distinct taxonomic unit.

1875—part, Mirador, Vera Cruz (spec. No. 23,917); (?) Lawrence, Bull. U. S. Nat. Mus., 4, p. 25, 1876—Guichicovi, Tehuantepec, Oaxaca.

*Psilorhinus mexicanus mexicanus* Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 301, 1904—southeastern Mexico, in states of Vera Cruz, Oaxaca, "Chiapas," and Tabasco (monog.).

*Range*.—Southeastern Mexico, in states of (?) Tamaulipas, Vera Cruz (Mirador, Jalapa, Catemaco), (?) Oaxaca (Guichicovi), and (?) Tabasco (Montecristo).

1: Mexico (unspecified, 1).

**\**Psilorhinus mexicanus cyanogenys* Sharpe. CENTRAL AMERICAN BROWN JAY.**

*Psilorhinus cyanogenys* Sharpe, Cat. Bds. Brit. Mus., 3, p. 140, pl. 9, 1877—Pearl Bay Lagoon, Mosquito=Pearl Cay Lagoon, Nicaragua (type in British Museum); Stone, Proc. Acad. Nat. Sci. Phila., 1891, p. 94 (crit.).

*Psilorhinus mexicanus* (not of Rüppell) Sclater and Salvin, Proc. Zool. Soc. Lond., 1869, p. 363—Guatemala, Honduras, and Costa Rica (crit.); Sharpe, Cat. Bds. Brit. Mus., 3, p. 140, 1877—part, Honduras and Costa Rica; Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 506, 1887—part, British Honduras, Guatemala, Honduras, Nicaragua, and Costa Rica; Zeledón, Anal. Mus. Nac. Costa Rica, 1, p. 113, 1887—Cartago, Alajuela, and El Zarcero de Alajuela, Costa Rica; Lantz, Trans. Kansas Acad. Sci., 16, p. 222, 1899—Santa Tomas, Guatemala; Underwood, Ibis, 1896, p. 437—Miravalles, Costa Rica.

*Psilorhinus mexicanus cyanogenys* Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 301, 1904—from Guatemala to Costa Rica (monog., full bibliog.); Dearborn, Field Mus. Nat. Hist., Orn. Ser., 1, p. 111, 1907—Izabal and Los Amates, Guatemala; Ferry, l.c., p. 274, 1910—Guayábo and Coliblanco, Costa Rica; Carriker, Ann. Carnegie Mus., 6, p. 774, 1910—Guayábo, Bonilla, El Copey, Santa María de Dota, San José, Guápiles, and Cuábre, Costa Rica (habits); Peters, Auk, 30, p. 377, 1913—Xcopen and Camp Mengel, Quintana Roo (crit.); Rendahl, Ark. Zool., 12, No. 8, p. 28, 1919—Sipurio (Talamanca), Costa Rica; Austin, Bull. Mus. Comp. Zool., 69, p. 393, 1929—Cayo district, British Honduras; Peters, l.c., p. 478, 1929—Tela, Ulua Valley, and Progreso, Honduras.

*Range*.—Extreme eastern Mexico, in Territory of Quintana Roo (Xcopen and Camp Mengel); British Honduras; Guatemala; Honduras; Nicaragua; Costa Rica.

16: Guatemala (Los Amates, 5); Costa Rica (Guayábo, 5; Coliblanco, 1; Limón, 1; San José, 1; Juan Viñas, 1; Peralta, 1; unspecified, 1).

**\**Psilorhinus mexicanus vociferus* (Cabot). YUCATAN BROWN JAY.**

*Corvus vociferus* Cabot, Proc. Bost. Soc. N. H., 1, p. 155, 1843—Yucatan (type now in the Academy of Natural Sciences, Philadelphia; two cotypes in Museum of Comparative Zoology, Cambridge, Mass.).

*Psilorhinus mexicanus* (not of Rüppell) Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 506, 1887—part, northern Yucatan; Chapman, Bull. Amer. Mus. N. H., 8, p. 282, 1896—Chichen Itza, Yucatan; Stone, Proc. Acad. Nat. Sci. Phila., 1899, p. 25—Yucatan (note on type).

*Psilorhinus vociferus* Stone, Proc. Acad. Nat. Sci. Phila., 1891, p. 95—Yucatan (crit.).

*Psilorhinus mexicanus vociferus* Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 303, 1904—Yucatan (crit.); Cole, Bull. Mus. Comp. Zool., 50, p. 137, 1906—Chichen Itza, Yucatan; Bangs, Auk, 32, p. 169, 1915—Casa del Gobernador, Yturbide, and Izamal, Yucatan; Griscom, Amer. Mus. Nov., 235, p. 19, 1926—eastern Yucatan.

*Range*.—Yucatan.

1: Yucatan (San Felipe, 1).

### ***Psilorhinus mexicanus captus* Kennard and Peters.<sup>1</sup> PANAMA BROWN JAY.**

*Psilorhinus mexicanus captus* Kennard and Peters, Proc. New Engl. Zool. Cl., 10, p. 2, 1927—Chiriquicito, western Panama (type in Museum of Comparative Zoology, Cambridge, Mass.); idem, Proc. Bost. Soc. N. H., 38, p. 465, 1928—Almirante and Chiriquicito, Panama; Peters, Bull. Mus. Comp. Zool., 71, p. 344, 1931—Guabo, Chiriquicito, and Cricamola, Panama.

*Range*.—Northwestern Panama (Almirante Bay region).

### **Genus CYANOCORAX Boie**

*Cyanocorax* Boie, Isis, 1826, p. 975—type, by virtual monotypy, *Corvus pileatus* Temminck=*Pica chrysops* Vieillot.

*Cyanurus* Swainson, in Richardson, Faun. Bor.-Amer., 2, p. 495, Feb., 1832—no type designated.<sup>2</sup>

*Coronideus* Cabanis, Mus. Hein., 1, p. 225, 1851—type, by subs. design. (Gray, Cat. Gen. Subgen. Bds., p. 62, 1855), *Cyanocorax hyacinthinus* Cabanis=*Cyanocorax violaceus* Dubus.

### **\**Cyanocorax chrysops chrysops* (Vieillot). URRACA JAY.**

*Pica chrysops* Vieillot, Nouv. Dict. Hist. Nat., nouv. éd., 26, p. 124, 1818—based on Azara, No. 53, Paraguay; idem and Oudart, Gal. Ois., 1, (2), p. 157, pl. 101, 1823—Paraguay.

<sup>1</sup> *Psilorhinus mexicanus captus* Kennard and Peters: "Similar to *P. m. cyanogenys*, but the color of the breast less sharply defined from that of the abdomen, abdomen and sides mouse-gray (white or creamy in *cyanogenys*), this color extending to the bases of the feathers; white tail spots smaller. Wing, 180–195, (female) 180–190; tail, 180–195; bill, 42½–44." (Kennard and Peters, l.c.).

<sup>2</sup> No valid type appears to have been designated for this genus. G. R. Gray (Cat. Gen. Subgen. Bds., p. 62, 1855) had selected *Corvus cristatus* Linnaeus, the first species mentioned, but this action is against the rules as Swainson himself tells us that the first three species are "aberrant" and that the "typical" species are only found in the "tropics of America and India." Though, by common consent, *Cyanurus* has been regarded as synonymous with *Cyanocorax*, it seems advisable to formally propose a genotype to set this name at rest, and we suggest as such *Corvus pileatus* "Ill."=*Pica chrysops* Vieillot.

*Corvus pileatus* Temminck, Nouv. Rec. Pl. Col., livr. 10, pl. 58, 1821—Paraguay and Brazil (location of type not indicated).

*Cyanocorax pileatus* Burmeister, Syst. Uebers. Th. Bras., 3, p. 284, 1856—Brazil; Heine, Journ. Orn., 8, p. 114, 1860—Paraguay and southern Brazil (monog.); Burmeister, l.c., 8, p. 258, 1860—part, Mercedes, Uruguay; idem, Reise La Plata St., 2, p. 495, 1861—part, Mercedes, Uruguay; Pelzeln, Orn. Bras., 3, p. 189, 1870—São Paulo (Ytararé, Cinzas, Tejuco, Lages, Rio Paraná); Reinhardt, Vidensk. Medd. Naturhist. Foren., 1870, p. 395—São Paulo (Hytú, Soracaba, São Bento de Araraquara); Doering, Period. Zool. Arg., 1, p. 255, 1877—Rio Guayquiraro, Corrientes; Barrows, Bull. Nutt. Orn. Cl., 8, p. 136, 1883—Concepción, Entre Rios.

*Cyanocorax chrysops* Sharpe, Cat. Bds. Brit. Mus., 3, p. 120, 1877—southern Brazil, Paraguay, and Uruguay; Sclater and Salvin, Proc. Zool. Soc. Lond., 1879, p. 609—Chiquitos and Cinti (=Camargo), Dept. Chuquisaca, Bolivia; Sclater and Hudson, Arg. Orn., 1, p. 110, 1888—part; Allen, Bull. Amer. Mus. N. H., 3, p. 379, 1891—Corumbá, Matto Grosso; Kerr, Ibis, 1892, p. 128—Puerto Juarez Celman, Terr. del Chaco; Aplin, Ibis, 1894, p. 174—Arroyo Grande, near Santa Elena, and valley of the Rio Negro, Uruguay; Salvadori, Boll. Mus. Zool. Torino, 10, No. 208, p. 9, 1895—Villa Rica, Paraguay; idem, l.c., 12, No. 292, p. 11, 1897—Caiza, Bolivia; Ihering, Rev. Mus. Paul., 3, p. 174, 1899—São Paulo; Kerr, Ibis, 1901, p. 224—Villa Concepción, Paraguay; Lönnberg, Ibis, 1903, p. 471—Tatarenda, Bolivian Chaco; Ihering and Ihering, Cat. Faun. Braz., 1, p. 404, 1907—São Paulo (Campos de Jordão, Baurú, Rincão, Ytararé) and Paraná (Ourinho); Dabbene, Anal. Mus. Nac. Hist. Nat. Buenos Aires, 18, p. 405, 1910—part, Mocoví, Chaco; Chubb, Ibis, 1910, p. 646—Sapucay, Paraguay; Grant, Ibis, 1911, p. 109—Riacho Ancho, Terr. del Chaco; Chrostowski, C. R. Soc. Scient. Varsovie, 5, pp. 490, 500, 1912—Vera Guarany, Paraná; Bertoni, Faun. Parag., p. 66, 1913—Alto Paraná, Paraguay; Ménégau, Rev. Franç. d'Orn., 11, p. 8, 1918—Villa Lutetia, near San Ignacio, Misiones; Marelli, El Hornero, 1, p. 80, 1918—Curuzú Cuatía, Corrientes; Bertoni, l.c., p. 191, 1918—Paraguay (eggs descr.); Tremoleras, l.c., 2, p. 24, 1920—Salto, Uruguay.

*Cyanocorax chrysops chrysops* Hartert and Venturi, Nov. Zool., 16, p. 188, 1909—Mocoví, Prov. Santa Fé; Dabbene, Anal. Mus. Nac. Hist. Nat. Buenos Aires, 23, p. 374, 1912—Villa Rica, Paraguay (crit.); Wetmore, Bull. U. S. Nat. Mus., 133, p. 365, 1926—Las Palmas (Chaco), Riacho Pilaga (Formosa), and west of Puerto Pinasco (Paraguay); Laubmann, Wissens. Erg. Deuts. Gran Chaco Exp., Vogel, p. 299, 1930—Formosa (Lapango, San José, Tapikiolé) and Bolivia (Villa Montes, Tarija, and San José de Chiquitos, Santa Cruz) (crit.).

*Cyanocorax chrysops tucumanus* (not of Cabanis) Naumburg, Bull. Amer. Mus. N. H., 60, p. 400, 1930—Urucúm, Matto Grosso (crit.).

*Garrulus chrysops* Lafresnaye and d'Orbigny, Syn. Av., 2, in Mag. Zool., 8, cl. 2, p. 9, 1838—Corrientes and Chiquitos, Bolivia.

*Range*.—Northeastern Argentina, in provinces of Entre Rios, Corrientes, Misiones, Santa Fé, Chaco, and Formosa; Uruguay; Paraguay; southern Brazil, in states of São Paulo, Paraná, and



Matto Grosso; eastern Bolivia, in depts. of Tarija (Caiza, Tatarenda, Villa Montes), Chuquisaca (Camargo), and Santa Cruz (Chiquitos; San José, Mizque; Santa Cruz de la Sierra).<sup>1</sup>

18: Argentina (Las Palmas, Chaco, 1; Ocampo, Santa Fé, 2; Puerto Segundo, Misiones, 3; Caraguatay, Misiones, 5); Brazil (Urucúm de Corumbá, Matto Grosso, 2; Piraputanga, Matto Grosso, 1; Victoria, São Paulo, 1; Fazenda Cayoá, Salto Grande do Rio Paranapanema, São Paulo, 1; Candido de Abreu, Paraná, 2).

**\**Cyanocorax chrysops tucumanus* Cabanis.<sup>2</sup> TUCUMÁN JAY.**

*Cyanocorax tucumanus* Cabanis, Journ. Orn., 31, p. 216, 1883—Tucumán (type in Berlin Museum).

<sup>1</sup> Birds from southern Brazil (São Paulo and Paraná) agree with a topotypical Paraguayan series and another from Misiones. Specimens from the Argentine Chaco (right bank of the Paraná), eastern Bolivia, and Matto Grosso also appear to me inseparable, and I cannot follow Mrs. Naumburg in referring the inhabitants of the latter country to *tucumanus*. Neither in the development of the frontal crest nor in proportion do they show any noticeable divergency from Paraguayan birds. The yellowish color of the under parts, being subject to rapid fading in museum specimens, is useless for taxonomic purposes.

The specimen recorded by Gosse (Bds. Jamaica, p. 208, 1847) as having been obtained alive near Newcastle, Jamaica, must have been an escaped cage-bird.

*Additional material examined.*—Paraguay: Bernalcué, near Asunción, 5; Villa Concepción, 3.—Bolivia: Santa Cruz de la Sierra, 3; San José (Rio Mizque), 1.

<sup>2</sup> *Cyanocorax chrysops tucumanus* Cabanis merely differs by generally larger size, but even this is not an absolutely constant feature, as the measurements slightly overlap. The other characters given for this form, such as stronger bill, longer frontal crest, and darker coloration of the dorsal surface, hold only in a small percentage of birds from western Argentina. Specimens from Salta, which we have not seen, may turn out to be referable to typical *chrysops*.

WING MEASUREMENTS

Adult males

*C. c. chrysops*

Paraguay (Bernalcué, Villa Concepción).....	148, 154, 155, 160
Misiones (Puerto Segundo, Caraguatay).....	146, 150, 156, 160
São Paulo (Victoria).....	157
Paraná (Candido de Abreu).....	160
Matto Grosso (Urucúm).....	150
Eastern Bolivia (Santa Cruz, San José).....	156, 159
Argentine Chaco (Las Palmas, Chaco; Ocampo, Santa Fé).....	150, 156

*C. c. tucumanus*

Tucumán (Concepción).....	165, 166, 170
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Adult females

*C. c. chrysops*

Paraguay (Bernalcué, Villa Concepción).....	145, 146, 149, 150
Misiones (Puerto Segundo, Caraguatay).....	146, 153, 156, 159
Paraná (Candido de Abreu).....	157
São Paulo (Fazenda Cayoá).....	153
Matto Grosso (Urucúm, Piraputanga).....	153, 153
Argentine Chaco (Ocampo, Santa Fé).....	153
Bolivia (Santa Cruz).....	151

*C. c. tucumanus*

Tucumán (Concepción, Tafi Viejo).....	157, 157, 163, 163, 167
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*Cyanocorax pileatus* (not of Temminck) Burmeister, Journ. Orn., 8, p. 258, 1860—part, Tucumán; idem, Reise La Plata St., 2, p. 495, 1861—part, Tucumán; White, Proc. Zool. Soc. Lond., 1882, p. 602—(?) Campo Colorado, Orán, Salta, and Sierras de Totoral, Catamarca.

*Cyanocorax chrysops* (not *Pica chrysops* Vieillot) Salvin, Ibis, 1880, p. 356—Tucumán; Sclater and Hudson, Arg. Orn., 1, p. 110, 1888—part, Salta (?), Tucumán, and Catamarca; Lillo, Anal. Mus. Nac. Hist. Nat. Buenos Aires, 8, p. 182, 1902—Tucumán; Baer, Ornith., 12, p. 219, 1904—Santa Ana and Tapia, Tucumán; (?) Bruch, Rev. Mus. La Plata, 11, p. 258, 1904—Orán, Salta; Lillo, Rev. Letr. y Cienc. Soc., 3, p. 46, 1905—Tucumán; Dabbene, Anal. Mus. Nac. Hist. Nat. Buenos Aires, 18, p. 405, 1910—part, La Rioja, Tucumán, and (?) Salta (Orán).

*Cyanocorax chrysops tucumanus* Hartert and Venturi, Nov. Zool., 16, p. 188, 1909—Tucumán (crit.); Giacomelli, El Hornero, 3, p. 70, 1923—La Rioja; Wetmore, Bull. U. S. Nat. Mus., 133, p. 365, 1926—Tapia, Tucumán (crit.); Friedmann, Bull. Mus. Comp. Zool., 68, p. 215, 1927—Iltico, Tucumán.

*Range*.—Northwestern Argentina, in provinces of La Rioja, Catamarca, Tucumán, and (?) Salta.

7: Argentina (Concepción, Tucumán, 7).

### **Cyanocorax chrysops diesingii Pelzeln.<sup>1</sup> DIESING'S JAY.**

*Cyanocorax diesingii* Pelzeln, Sitzungsber. Akad. Wiss. Wien, math.-naturwiss. Cl., 20, (1), p. 164, March, 1856—Borba, Rio Madeira (type in Vienna Museum examined); idem, Orn. Bras., 3, p. 189, 1870—Borba.

*Cyanocorax diesingii* Heine, Journ. Orn., 8, p. 114, 1860—Borba (monog.); Sharpe, Cat. Bds. Brit. Mus., 3, p. 121, 1877—Borba.

*Cyanocorax chrysops diesingii* Hellmayr, Nov. Zool., 17, p. 283, 1910—Borba (crit.).

*Range*.—Northern Brazil, in State of Amazonas (Borba, right bank of the lower Rio Madeira).

### **\*Cyanocorax affinis affinis Pelzeln. COLOMBIAN JAY.**

*Cyanocorax affinis* Pelzeln, Sitzungsber. Akad. Wiss. Wien, math.-naturwiss.

Cl., 20, (1), p. 164, March, 1856—Bogotá (type in Vienna Museum examined); Heine, Journ. Orn., 8, p. 114, 1860—Bogotá (monog.); Sclater, Cat. Coll. Amer. Bds., p. 145, 1862—Bogotá; Schlegel, Mus. Pays-Bas, livr. 9, Coraces, p. 53, 1867—Bogotá (crit.); Sclater and Salvin, Proc. Zool. Soc. Lond., 1870, p. 781—"south east" of Mérida, Venezuela;

<sup>1</sup> *Cyanocorax chrysops diesingii* Pelzeln: Nearly allied to *C. c. chrysops*, but larger, about as large as *C. c. tucumanus*; feathers of pileum stiffer and much more elongated, the longest measuring fully 20 mm., so as to form a conspicuous erect crest; the blue markings on the sides of the head much more restricted, the supra-ocular spot being much smaller and darker, uniform lilac-blue, while in the malar region there is only a narrow streak of pale lilac-blue instead of the whole of the cheeks and malar region being deep violet as in *C. c. chrysops*; hindneck uniform whitish blue, not tinged with violet posteriorly; bill shorter. Wing (adult male), 167; tail, 163; bill, 26½.

*Material examined*.—Brazil: Borba, Rio Madeira, 2.

Sharpe, Cat. Bds. Brit. Mus., 3, p. 121, 1877—part, Bogotá; Sclater and Salvin, Proc. Zool. Soc. Lond., 1879, p. 510—Cauca, Remedios, Colombia; Salvin and Godman, Ibis, 1879, p. 201—Valle de Upar and Atanques, Santa Marta (crit.); Bangs, Proc. Biol. Soc. Wash., 12, p. 138, 1898—Santa Marta; Allen, Bull. Amer. Mus. N. H., 13, p. 162, 1900—Bonda, Minca, Las Nubes, Onaca, and Cacagualito, Santa Marta region; idem, l.c., 21, p. 290, 1905—Bonda (nest and eggs).

*Cyanocorax sclateri* Heine, Journ. Orn., 8, p. 115, 1860—Cartagena (?) (type in Heine Collection, Halberstadt, examined); Sharpe, Cat. Bds. Brit. Mus., 3, p. 122, 1877—Cartagena (ex Heine).

*Cyanocorax pileatus* (not *Corvus pileatus* Temminck) Sclater, Proc. Zool. Soc. Lond., 23, p. 153, 1855—Bogotá; Cassin, Proc. Acad. Nat. Sci. Phila., 1860, p. 138—Rios Truando and Nercua, Colombia.

*Cyanocorax affinis affinis* Hellmayr, Proc. Zool. Soc. Lond., 1911, p. 1123—Noanamá, El Tigre (Rio Tamaná), and Pueblo Rico, western Colombia (crit.); Chapman, Bull. Amer. Mus. N. H., 36, p. 636, 1917—Peque (Antioquia), Dabeiba, Alto Bonito, Bagado, Iguamiando (Chocó), Turbaco, Puerto Valdivia and La Frijolera (lower Cauca), west of Honda and Chicoral (Magdalena River), Colombia (crit.); Todd and Carriker, Ann. Carnegie Mus., 14, p. 427, 1922—La Concepción, Bonda, Las Nubes, Mamatoco, Las Vegas, San Miguel, Minca, Agua Dulce, Cincinnati, and La Tigrera, Santa Marta; Darlington, Bull. Mus. Comp. Zool., 71, p. 409, 1931—Rio Frio, Magdalena, Colombia.

**Range.**—Tropical zone of northern Colombia, south to about latitude 4°N., and adjoining parts of Venezuela (southern section of Zulia).<sup>1</sup>

8: Colombia ("Bogotá," 1; El Guayabal, ten miles north of San José de Cucuta, Santander, 1); Venezuela (Orope, Zulia, 6).

**\**Cyanocorax affinis zeledoni* Ridgway.<sup>2</sup> TALAMANCA JAY.**

<sup>1</sup> This form may prove to be divisible into two races. The type of *C. affinis* agrees in dimensions with birds from Bogotá and Chicoral, near Giradot, in the upper Magdalena Valley. Specimens from western and northern Colombia (Santa Marta region; near Cucuta) and Venezuela (Orope, Zulia) are smaller and have slenderer, though not always shorter bills. The type of *C. sclateri*, which, thanks to the courtesy of Mr. Hemprich, the Director of the Halberstadt Museum, has been available for examination, is a very typical example of this small variety. It is an adult male and measures: wing, 162; tail, 162 mm. The describer was somewhat doubtful as to its patria, but the preparation of the skin clearly indicates the Caribbean coast of Colombia. Besides, the label gives "Cartagena" as locality. Specimens from northwestern Colombia (Rio Atrato and Rio Truando), by having a faint creamy tinge underneath, form the passage to *C. a. zeledoni*.

**Material examined.**—Colombia: "Bogotá," 5; Chicoral, 2; Pueblo Rico, 1; Noanamá, 3; El Guayabal, Santander, 1; Santa Marta region, 5; Cartagena, 1; Rio Atrato, 1.—Venezuela: Orope, Zulia, 6.

<sup>2</sup> *Cyanocorax affinis zeledoni* Ridgway: Agreeing in size with the small variety of *affinis*, from northern Colombia and Venezuela, but under parts of the body and tips to rectrices light creamy yellow instead of white. Wing, 160–165; tail, 160–170; bill, 27–29.

Birds from eastern Panama (Darien) are paler yellowish below and closely approach certain individuals from northwestern Colombia.

**Material examined.**—Costa Rica: Talamanca, 2.—Panama: Chiriquí, 5; Boqueron, 3; Panama Railroad line, 1; Pita, 2.

*Cyanocorax affinis zeledoni* Ridgway, Auk, 16, p. 255, 1899—Talamanca, Costa Rica (type in U. S. National Museum); Bangs, Auk, 18, p. 368, 1901—Divala, Chiriquí; Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 304, 1904—Panama to eastern Costa Rica (monog.); Carriker, Ann. Carnegie Mus., 6, p. 773, 1910—Banana River and Cuábre de Talamanca, Costa Rica; Stone, Proc. Acad. Nat. Sci. Phila., 1918, p. 280—Gatun, Panama; Rendahl, Ark. Zool., 12, No. 8, p. 28, 1919—Pueblo Nuevo, Panama, and Sipurio, Talamanca, Costa Rica; Bangs and Barbour, Bull. Mus. Comp. Zool., 65, p. 223, 1922—Rio Esnápe and Jesusito, Darien; Kennard and Peters, Proc. Bost. Soc. N. H., 38, p. 465, 1928—Chiriquicito, Panama; Griscom, Bull. Mus. Comp. Zool., 69, p. 190, 1929—El Tigre (Rio Cupe) and Cana, Darien; Peters, l.c., 71, p. 344, 1931—Changuinola, Guabo, Boquete trail, and Cricamola, Panama.

*Uroleuca pileata* (not *Corvus pileatus* Temminck) Lawrence, Ann. Lyc. Nat. Hist. N. Y., 7, p. 296, 1862—Panama Railroad.

*Cyanocorax affinis* (not of Pelzel) Sclater and Salvin, Proc. Zool. Soc. Lond., 1864, p. 354—Panama Railroad; Salvin, l.c., 1870, p. 191—Calobre, Veragua, and Bugaba, Chiriquí; Sharpe, Cat. Bds. Brit. Mus., 3, p. 121, 1877—part, Chepo, Panama; Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 504, 1887—part, Costa Rica and Panama (Bugaba, Calobre, line of Panama Railway, Chepo); Zeledón, Anal. Mus. Nac. Costa Rica, 1, p. 113, 1887—Talamanca, Costa Rica; Salvadori and Festa, Boll. Mus. Zool. Torino, 14, No. 339, p. 5, 1899—Pita, Darien.

*Range*.—Southeastern Costa Rica and Panama (Chiriquí; Veraguas; Panama; Darien).

3: Panama (Boqueron, Chiriquí, 3).

### ***Cyanocorax mystacalis* (Geoffroy Saint-Hilaire).<sup>1</sup> MOUSTACHED JAY.**

*Pica mystacalis* Geoffroy Saint-Hilaire, Mag. Zool., 5, cl. 2, pl. 34, 1835—Guayaquil, Ecuador (type in Masséna Collection, now in the Academy of Natural Sciences, Philadelphia).

*Cyanocorax uroleucus* Heine, Journ. Orn., 8, p. 115, 1860—"Bolivia," errore<sup>2</sup> (type in Heine Collection, Halberstadt).

*Cyanocorax bellus* Schlegel, Mus. Pays-Bas, livr. 9, Coraces, p. 50, 1867—locality unknown (type in Leiden Museum).

*Cyanocorax ortonii* Lawrence, Ann. Lyc. Nat. Hist. N. Y., 11, p. 166, Feb., 1876—Pacasmayo and Ticapa, Dept. Libertad, Peru (type from Ticapa in the American Museum of Natural History, New York).

*Cyanocorax mystacalis* Sclater and Salvin, Proc. Zool. Soc. Lond., 1876, p. 272—Loja, Ecuador (crit.); idem, l.c., 1878, p. 138—Tumbez (crit.); Sharpe, Cat. Bds. Brit. Mus., 3, p. 124, 1877—Ecuador; Taczanowski, Proc. Zool. Soc. Lond., 1877, p. 323—Tumbez, Peru; Salvin, l.c., 1883,

<sup>1</sup> This well-characterized species, while somewhat related to *C. cyanopogon*, is perfectly distinct. According to information received from Mr. J. T. Zimmer, the presence of blue at the base of the lateral rectrices claimed to distinguish *C. bellus* is a purely individual character.

<sup>2</sup> As in the case of many other species collected by Warszewicz, this locality is unquestionably inaccurate.

p. 423—Payta, Peru; Taczanowski, Orn. Pér., 2, p. 398, 1884—Guadalupe, Trigal, Paucal, and Tumbes, Peru; Stone, Proc. Acad. Nat. Sci. Phila., 1891, p. 443—Ecuador; Salvadori and Festa, Boll. Mus. Zool. Torino, 14, No. 357, p. 30, 1899—Vinces, Ecuador; Bangs and Noble, Auk, 35, p. 457, 1918—Sullana, Piura; Chapman, Bull. Amer. Mus. N. H., 55, p. 700, 1926—western Ecuador (Daule, Chongoncito, Santa Rosa, Zaruma, Casanga) and northwestern Peru (Milagros, Samate, Chilaco, Sullana, Palambla).

*Range*.—Arid Tropical zone of southwestern Ecuador (from Guayas Province southward) and northwestern Peru (in depts. of Tumbes, Piura, Lambayeque, Libertad, and Cajamarca).

**\*Cyanocorax cyanopogon (Wied). BLUE-BEARDED JAY.**

*Corvus cyanopogon* Wied, Reise Bras., 2, p. 137 (8vo ed., p. 136),<sup>1</sup> 1821—Rio Cachoeira, one of the headwaters of the Rio Ilhéos, Bahia (type now in the American Museum of Natural History, New York); idem, l.c., p. 243 (8vo ed., p. 242), 1821—Rio das Contas, Bahia; Temminck, Nouv. Rec. Pl. Col., livr. 29, pl. 169, 1822—Bahia; Wied, Beitr. Naturg. Bras., 3, (2), p. 1247, 1831—Bahia.

*Cyanocorax cyanopogon* Burmeister, Syst. Uebers. Th. Bras., 3, p. 285, 1856—Bahia; Heine, Journ. Orn., 8, p. 117, 1860—Bahia (monog.); Pelzeln, Orn. Bras., 3, p. 190, 1870—Minas Geraes (Nas Furnas) and Goyaz (Rio Paranahyba and Goyaz); Reinhardt, Vidensk. Medd. Naturhist. Foren., 1870, p. 394—Minas Geraes (Rio das Velhas, Lagôa dos Pitos, and Lagôa Santa); Sharpe, Cat. Bds. Brit. Mus., 3, p. 123, 1877—Brazil; Allen, Bull. Amer. Mus. N. H., 2, p. 227, 1889—Bahia (note on type); Ihering and Ihering, Cat. Faun. Braz., 1, p. 404, 1907—Bahia and Goyaz (Catalão); Hellmayr, Nov. Zool., 15, p. 40, 1908—Goyaz (Goyaz City, Fazenda Esperança, and Rio Araguaya) and Minas Geraes (Rio Jordão, Prov. Araguay); Reiser, Denks. Math.-Naturwiss. Kl. Akad. Wiss. Wien, 76, p. 79, 1910—Solidade, near Carnahyba, Fazenda do Fora (Rio Grande), and opposite Cantinho (Rio Preto), Bahia; idem, l.c., p. 173, 1925—Bahia and Piahy; Snethlage, Bol. Mus. Nac. Rio de Janeiro, 2, No. 6, p. 42, 1926—Ceará; Hellmayr, Field Mus. Nat. Hist., Zool. Ser., 12, p. 271, 1929—Maranhão (Rosario; Codó, Cocos; Miritiba), Piahy (Ibiapaba), and Ceará (Quixada; Juá, near Iguatú).

*Range*.—Tableland of inner Brazil, from Maranhão, Piahy, and Ceará south to Bahia, southern Goyaz (Rio Paranahyba), and western Minas Geraes (Lagôa Santa; Nas Furnas; Rio Jordão, near Araguay).

24: Brazil, Maranhão (Rosario, 6; Miritiba, 1; Codó, Cocos, 1); Piahy (Ibiapaba, 2); Ceará (Quixada, 4; Juá, near Iguatú, 3); Goyaz (Rio São Miguel, 2; Nova Roma, 3; Volta da Serra, 2).

<sup>1</sup> The short diagnosis, though none too good, can hardly refer to any other species. *C. cyanopogon*, while nearly related to *C. cayanus*, seems nevertheless too different to be regarded as conspecific.

**\*Cyanocorax cayanus (Linnaeus). CAYENNE JAY.**

*Corvus cayanus* Linnaeus, Syst. Nat., 12th ed., 1, p. 157, 1766—based on "Le Geay de Cayenne" Brisson, Orn., 2, p. 52, pl. 4, fig. 1, Cayenne (type in Réaumur Collection).

*Pica albicapilla* Vieillot, Nouv. Dict. Hist. Nat., nouv. éd., 26, p. 125, 1818—based on (Latham ex Linnaeus ex) Brisson and Daubenton, Pl. Enl., pl. 373, Cayenne.

*Pica larrata* Wagler, Syst. Av., fol. 21, Genus *Pica*, sp. 29, 1827—Cayenne (type in Paris Museum).

*Cyanocorax intermedius* Heine, Journ. Orn., 8, p. 116, 1860—Venezuela (type in Heine Collection, Halberstadt, examined); Sharpe, Cat. Bds. Brit. Mus., 3, p. 123, 1877—Venezuela (ex Heine).<sup>1</sup>

*Cyanocorax cayanus* Cabanis, in Schomburgk, Reisen Brit. Guiana, 3, p. 683, "1848" [=1849]—British Guiana (Canuku Mountains, etc.); Heine, Journ. Orn., 8, p. 116, 1860—Cayenne and [British] Guiana (monog.); Schlegel, Mus. Pays-Bas, livr. 9, Coraces, p. 51, 1867—Cayenne and Surinam; Pelzeln, Orn. Bras., 3, p. 190, 1870—Barra do Rio Negro [=Manáos] and Rio Branco, south of the Serra Caraumán, Brazil; Sharpe, Cat. Bds. Brit. Mus., 3, p. 122, 1877—Guiana; Salvin, Ibis, 1885, p. 219—Bartica Grove and Camacusa, British Guiana; Berlepsch and Hartert, Nov. Zool., 9, p. 34, 1902—Suapure and La Pricion, Caura, Venezuela; Ihering and Ihering, Cat. Faun. Braz., 1, p. 404, 1907 (range); Berlepsch, Nov. Zool., 16, p. 124, 1909—Cayenne; Penard and Penard, Vog. Guyana, 2, p. 509, 1910—Dutch Guiana; Cherrie, Sci. Bull., Mus. Brookl. Inst., 2, p. 213, 1916—Suapure and La Pricion, Caura, Venezuela; Beebe, Trop. Wild Life, 1, p. 137, 1917—Bartica Grove, British Guiana; Bangs and Penard, Bull. Mus. Comp. Zool., 62, p. 82, 1918—Lelydorp, Dutch Guiana; Chubb, Bds. Brit. Guiana, 2, p. 587, 1921—British Guiana (numerous localities).

*Range*.—French, Dutch, and British Guiana; eastern Venezuela (Caura Valley); and extreme northeastern Brazil (Manáos; Rio Branco).

7: Dutch Guiana (Lelydorp, Para district, 2); British Guiana (Essequibo River, 1; Potaro, 2; Mazaruni River, 2).

<sup>1</sup> On carefully comparing the type with four specimens from the Caura River and four others from Manáos, I am unable to corroborate any of the characters indicated in the original description. Size varies a good deal in this species, the wing in Caura birds ranging from 150 to 160, the tail from 155 to 170 mm., while the type of *C. intermedius* measures 150 on the wing and 152 on the tail. The supposedly lesser extent of the black gular area is due to the mode of preparation of the mounted specimen which, in the color of the back, does not appreciably differ. It may be added that there is absolutely no resemblance to *C. cyanopogon*, the structure of the crown-feathers being exactly the same as in ordinary *C. cayanus*. For the present, I cannot see in *C. intermedius* anything but a small-sized individual of the last-named species.

**\*Cyanocorax heilprini Gentry.<sup>1</sup> HEILPRIN'S JAY.**

*Cyanocorax heilprini* Gentry, Proc. Acad. Nat. Sci. Phila., 1885, p. 90—Rio Negro (type in the Academy of Natural Sciences, Philadelphia); Stone, l.c., 1891, p. 443—Rio Negro (crit.); idem, l.c., 1899, p. 26—Rio Negro; Forbes and Robinson, Bull. Liverpool Mus., 1, p. 85, pl. 1, 1898—Rio Negro (crit.); Ihering and Ihering, Cat. Faun. Braz., 1, p. 405, 1907—Rio Negro (ex Stone).

*Range*.—Northwestern Brazil, in State of Amazonas (Rio Negro), and the adjacent section of Venezuela (Rio Cassiquiare).

1: Brazil (Rio Negro, 1).

**\*Cyanocorax cyanomelas (Vieillot). BLACK-HEADED JAY.**

*Pica cyanomelas* Vieillot, Nouv. Dict. Hist. Nat., nouv. éd., 26, p. 127, 1818—based on Azara, No. 54, Paraguay.

*Pica cyanomelaena* Wagler, Syst. Av., fol. 21, Genus *Pica*, sp. 24, 1827—Paraguay (ex Azara).

*Garrulus cyanomelas* Lafresnaye and d'Orbigny, Syn. Av., 2, in Mag. Zool., 8, cl. 2, p. 9, 1838—Corrientes and Chiquitos, Bolivia (spec. in Paris Museum examined).

*Psilorhinus chilensis* Bonaparte, Consp. Gen. Av., 1, p. 381, 1850—"Chile," errore (the type in the Leiden Museum was collected by d'Orbigny in Bolivia [= Chiquitos]; cf. Schlegel, Mus. Pays-Bas, livr. 9, Coraces, p. 47, 1867).

*Coronideus cyanomelas* Burmeister, Syst. Uebers. Th. Bras., 3, p. 287, 1856—"Rio Grande do Sul, Montevideo" [errore], and Paraguay.

*Cyanocorax cyanomelas* Schlegel, Mus. Pays-Bas, livr. 9, Coraces, p. 47, 1867—"Engi de Pari" [= Engenho do Pari], Matto Grosso, and Bolivia;

<sup>1</sup>*Cyanocorax heilprini* Gentry, a very distinct species, combines certain characters of *C. cyanomelas* with others of *C. cayanus*, but differs from both by the remarkable development of the feathers of the anterior crown, which are much lengthened, stiff, and recurved, forming an erect frontal crest barely suggested in the allied species. In general coloration of the body plumage—dark drab washed with purplish—it is not unlike *C. cyanomelas*, from which it is, however, easily distinguished by whitish blue (about pale campanula blue) instead of dark bister crown and hindneck; the presence of a conspicuous deep aniline lilac malar streak; white (instead of dark dull violet blue) under tail coverts; and blackish rather than deep violet blue tail with long white tips. *C. heilprini* resembles *C. cayanus* in the last two particulars, but differs by pale bluish (instead of milky white) occiput and hindneck; drab brown purple-tinged (instead of white) breast, abdomen, and under wing coverts; shorter white tail tips; lighter brown back with much less violet on the wings; by lacking the bluish spots above and below the eye; and by having merely a narrow blue streak at the base of the lower mandible, while in *C. cayanus* the whole of the malar region is nearly white.

Wing (one unsexed adult), 170; tail, 167; bill, 27.

The exact limits of the range of *C. heilprini* remain to be determined. Three specimens only have been recorded, the type at Philadelphia and another at Liverpool, both labeled "Rio Negro." The example in Field Museum was also obtained somewhere on the upper Rio Negro by W. McGovern. In the collection of the American Museum of Natural History we have recently examined four adults, three males and one female, secured by the Olallas at Solano, Rio Cassiquiare, and at the junction of the Cassiquiare and Guainia rivers, in Venezuela.

Pelzeln, Orn. Bras., 3, p. 190, 1870—Cuyabá, Engenho do Pari, Jacobina, and Caicara, Matto Grosso; Sharpe, Cat. Bds. Brit. Mus., 3, p. 124, 1877—"Brazil"; Selater and Salvin, Proc. Zool. Soc. Lond., 1879, p. 609—Tiltilo, Prov. Yungas (crit.); Allen, Bull. Amer. Mus. N. H., 3, p. 379, 1891—Chapada, Matto Grosso (crit.); Ihering and Ihering, Cat. Faun. Braz., 1, p. 404, 1907—Matto Grosso and Bolivia;<sup>1</sup> Hartert and Venturi, Nov. Zool., 16, p. 188,<sup>2</sup> 1909—Mocoví, Chaco, Santa Fé; Dabbene, Anal. Mus. Nac. Hist. Nat. Buenos Aires, 18, p. 405, 1910—Chaco Argentino (Formosa and Ocampo); Bertoni, Faun. Parag., p. 66, 1913—Paraguay; Tremoleras, El Hornero, 2, p. 24, 1920—"Uruguay"; Wetmore, Bull. U. S. Nat. Mus., 133, p. 364, 1926—Las Palmas (Chaco), Riacho Pilaga (Formosa), west of Puerto Pinasco and Cerro Lorito (Paraguay); Laubmann, Wissens. Erg. Deuts. Gran Chaco Exp., Vogel, p. 298, 1930—Formosa (San José) and Bolivia (San José, Santa Cruz).

*Cyanocorax cyanomelas cyanomelas* Naumburg, Bull. Amer. Mus. N. H., 60, p. 401, 1930—Paraguay (Fort Wheeler, Trinidad, Rio Negro) and Matto Grosso (Urucúm).

*Cyanocorax nigriceps* Selater and Salvin, Proc. Zool. Soc. Lond., 1876, p. 354—Tiltilo, Bolivia (type in British Museum).

*Cyanocorax chilensis* Sharpe, Cat. Bds. Brit. Mus., 3, p. 125, 1877—Bolivia; Allen, Bull. Amer. Mus. N. H., 2, p. 85, 1889—Yungas, Bolivia.

**Range.**—Eastern Bolivia; Paraguay; northern Argentina, in provinces of Corrientes, Santa Fé, Formosa, and Chaco; southwestern Brazil, in State of Matto Grosso.<sup>3</sup>

<sup>1</sup> The range as given is incorrect, Rio Grande do Sul, Minas Geraes, Goyaz, and Uruguay being included by mistake.

<sup>2</sup> The egg from San Javier, Misiones, described and figured on pl. 3, fig. 4, can hardly be that of *C. cyanomelas*, a species which does not occur in Misiones. It very likely belongs to *C. caeruleus*.

<sup>3</sup> I am unable to discover any constant geographic variation in this jay. Birds from Bolivia, which have been separated as *C. nigriceps* on account of their supposedly blacker head and larger bill, do not differ from Paraguayan specimens so far as I can see. The coloration of the head is subject to a certain amount of seasonal variation, being more blackish in fresh plumage and duller, more brownish, in abraded examples. Size, too, varies a good deal individually.

Topotypical specimens of *nigriceps* from the Yungas of La Paz have not been available for examination, but they are not likely to be distinct, since two adults from San Mateo, at the northern base of the Sierra de Cochabamba, agree with the general run from Paraguay. At all events, *P. chilensis*, based on a bird from Chiquitos, eastern Bolivia, is an absolute synonym of *C. cyanomelas*.

The wing measurements of adult birds from different localities are as follows: Paraguay.—Male, 190; females, 178, 180, 180, 185.

Corrientes.—Female, 180.

Argentine Chaco (Rio de Oro).—Male, 185.

Matto Grosso.—Males, 183, 184, 187; females, 175, 176.

Bolivia.—Males, 190 (Chiquitos), 185, 195 (Bueyes, Santa Cruz), 188 (Cotacajes); females, 185, 188 (San Mateo).

**Material examined.**—Paraguay: Villa Concepción, 1; Salvador, 2; Bernalcué, near Asunción, 4.—Argentina: Rio de Oro, Chaco Austral, 1.—Brazil, Matto Grosso: Chapada, 3; Piraputanga, 3; Urucúm, 1.—Bolivia: Chiquitos, 3; Bueyes, Santa Cruz, 2; Cotacajes, 1; San Mateo, 2.



5: Brazil, Matto Grosso (Piraputanga, 3; Urucúm de Corumbá, 1; Chapada, 1).

**\*Cyanocorax violaceus Du Bus. VIOLACEOUS JAY.**

*Cyanocorax violaceus* Du Bus, Bull. Acad. Roy. Sci., Lettr. et Beaux-Arts Belg., 14, (2), p. 103, 1847—"le Pérou" (type in Brussels Museum); idem, Rev. Zool., 11, p. 243, 1848—Peru (reprint of orig. description); Sclater, Proc. Zool. Soc. Lond., 23, p. 153, 1855—"Bogotá"; idem, l.c., 26, p. 72, 1858—Rio Napo, Ecuador; idem, l.c., p. 456, 1858—Gualaquiza and Zamora, Ecuador; Sclater and Salvin, l.c., 1866, p. 182—upper Ucayali, Peru; idem, l.c., 1867, p. 750—Chyavetas, Peru; idem, l.c., p. 978—Pebas; Pelzeln, Orn. Bras., 3, p. 190, 1870—Sitio Julio, opposite San Carlos near S. Agostinho, Marabitanas, and São Joaquim, Rio Negro; Sclater and Salvin, Proc. Zool. Soc. Lond., 1873, p. 267—Rio Javari, Pebas, upper and lower Ucayali, Chyavetas, and Santa Cruz, Peru; Sharpe, Cat. Bds. Brit. Mus., 3, p. 125, 1877—Amazonia, Colombia, and Guiana; Taczanowski, Orn. Pér., 2, p. 399, 1884—Rio Javari, Pebas, Ucayali, Chyavetas, Santa Cruz, Carabaya; Berlepsch, Ibis, 1884, p. 433—Angostura, Orinoco River; Salvin, Ibis, 1885, p. 219—British Guiana; Berlepsch, Journ. Orn., 37, p. 300, 1889—Shanusi, near Yurimaguas, Peru; Salvadori and Festa, Boll. Mus. Zool. Torino, 14, No. 357, p. 30, 1899—Rio Zamora, Ecuador; Goodfellow, Ibis, 1901, p. 480—Rio Suno, upper Napo, Ecuador; Berlepsch and Hartert, Nov. Zool., 9, p. 34, 1902—Ciudad Bolívar, Altagracia, and Caicara, Orinoco River, and Suapure and La Prición, Caura, Venezuela; Ihering, Rev. Mus. Paul., 6, p. 433, 1905—Rio Juruá; idem, Cat. Faun. Braz., 1, p. 405, 1907—Rio Juruá (range); Berlepsch and Stolzmann, Orn., 13, p. 112, 1906—Huaynapata, Rio Cadena, and Escopal, Marcapata, Peru; Penard and Penard, Vog. Guyana, 2, p. 510, 1910—Guiana (ex Cabanis); Ménégau, Rev. Franç. d'Orn., 3, p. 11, 1911—Tocache, Peru; Cherrie, Sci. Bull., Mus. Brookl. Inst., 2, p. 212, 1916—Orinoco Valley (eggs descr.); Chapman, Bull. Amer. Mus. N. H., 36, p. 637, 1917—La Morelia, Villavicencio, and Barrigon, eastern base of eastern Andes, Colombia; idem, Bull. U. S. Nat. Mus., 117, p. 124, 1921—Rio Comerciato, Urubamba, Peru; idem, Bull. Amer. Mus. N. H., 55, p. 701, 1926—Rio Zamora, below San José, and Rio Suno, Ecuador; Zimmer, Field Mus. Nat. Hist., Zool. Ser., 17, p. 399, 1930—Puerto Bermúdez, Junín, Peru.

*Cyanocorax harrisi* Cassin, Proc. Acad. Nat. Sci. Phila., 4, p. 26, 1848—"Guayaquil," Ecuador, errore (type in the Academy of Natural Sciences, Philadelphia).

*Cyanocorax hyacinthinus* Cabanis, in Schomburgk, Reisen Brit. Guiana, 3, "1848," p. 683, 1849—Canuku Mountains, British Guiana (type in Berlin Museum); Chubb, Birds Brit. Guiana, 2, p. 588, 1921—British Guiana (crit.).

*Range.*—Upper Amazonia from the eastern foot of the eastern Andes of Colombia south to southeastern Peru (Marcapata), extending east through southern Venezuela (Orinoco-Caura basin) and

northern Brazil (Rio Negro) to southern British Guiana (Canuku=Cuano Mountains).<sup>1</sup>

3: Peru (Puerto Bermúdez, Junín, 2); Colombia ("Bogotá," 1).

**\*Cyanocorax caeruleus (Vieillot). AZURE JAY.**

*Pica caerulea* Vieillot, Nouv. Dict. Hist. Nat., nouv. éd., 26, p. 126, 1818—based on Azara, No. 55, Paraguay.

*Corvus azureus* Temminck, Nouv. Rec. Pl. Col., livr. 29, pl. 168, Dec., 1822—Paraguay and Brazil (location of type not stated).

*Cyanocorax heckelii* Pelzeln, Sitzungsber. Akad. Wiss. Wien, math.-naturwiss. Cl., 20, (1), p. 163, March, 1856—Rio Boraxudo, near Paranaguá, Paraná, Brazil (type in Vienna Museum examined); idem, Orn. Bras., 3, p. 191, 1870—Rio Boraxudo, Paraná; Sharpe, Cat. Bds. Brit. Mus., 3, p. 126, 1877—Rio Boraxudo (ex Pelzeln); Oberholser, Proc. U. S. Nat. Mus., 25, p. 140, 1902—Sapucay, Paraguay.

*Cyanocorax inexpectatus* Elliot, Ibis, (4), 2, p. 55, 1878—southern São Paulo (type in Paris Museum examined); Hellmayr, Nov. Zool., 13, p. 305, 1906 (crit.).

*Cyanocorax azureus* Pelzeln, Orn. Bras., 3, p. 191, 1870—São Paulo (Itararé, Murungaba) and Paraná (Scaramuza, Jaguaraíba, Curytiba); Hamilton, Ibis, 1871, p. 304—São Paulo; Berlepsch, Journ. Orn., 22, p. 283, 1874—Blumenau, Santa Catharina.

*Cyanocorax caeruleus*<sup>2</sup> Sharpe, Cat. Bds. Brit. Mus., 3, p. 126, 1877—southern Brazil; White, Proc. Zool. Soc. Lond., 1882, p. 603—San Javier, Misiones; Berlepsch and Ihering, Zeits. Ges. Orn., 2, p. 127, 1885—Taquara, Arroio Grande, and Linha Pirajá, Rio Grande do Sul (crit.); Sclater and Hudson, Arg. Orn., 1, p. 110, 1888—San Javier, Misiones; Kerr, Ibis, 1892, p. 128—Fortin Page, lower Pilcomayo; Ihering, Ann. Est. Rio Grande do Sul, 16, p. 124, 1899—Mundo Novo, Barra do Rio Camaquã, and Pedras Brancas, Rio Grande do Sul; idem, Rev. Mus. Paul., 3, p. 174, 1899—Iguapé, São Paulo; idem, l.c., 4, p. 222, 1900—Iguapé and Rio Grande do Sul (egg descr.); Salvadori, Boll. Mus. Zool. Torino, 15, No. 378, p. 17, 1900—Tebicuary, Paraguay; Kerr, Ibis, 1901, p. 225—Villa Concepción, Paraguay; Hellmayr, Nov. Zool., 13, p. 305, 1906—Brazil (crit., synonym.); Ihering and Ihering, Cat. Faun. Braz., 1, p. 405, 1907—São Paulo (Itararé, Iguapé), Paraná (Curitiba), Rio Grande do Sul (Nova Hamburgo); Dabbene, Anal. Mus. Nac. Hist. Nat. Buenos Aires, 18, p. 405, 1910—Misiones (San Javier and Santa Ana) and lower Pilcomayo; Chubb, Ibis, 1910, p. 646—Sapucay, Paraguay; Grant, Ibis, 1911, p. 109—Chaco Argentino (Riacho Ancho) and Paraguay (Curuzú Chica and

<sup>1</sup> A single old faded specimen from British Guiana is somewhat duller than skins from upper Amazonia, but as birds from the Caura, Venezuela, do not appreciably differ from the latter, I do not think it possible to maintain *hyacinthinus* even as a race.

Fifteen specimens, including four from the Caura River and three from the Rio Negro (Marabitanas; São Joaquim; between Lamalonga and Santa Isabel), examined.

<sup>2</sup> Often spelled *coeruleus*.

Humaita); Chrostowski, C. R. Soc. Sci. Varsovie, 5, pp. 490, 500, 1912—Vera Guarany, Paraná; Bertoni, Faun. Parag., p. 66, 1913—Paraguay; Marelli, El Hornero, 1, p. 80, 1918—Curuzú Cuatia, Corrientes; Ménégau, Rev. Franç. d'Orn., 11, p. 8, 1918—Villa Lutetia, near San Ignacio, Misiones; Sztolcman, Ann. Zool. Mus. Pol. Hist. Nat., 5, p. 196, 1926—Invernadinha, Paraná.

*Range*.—Southeastern Brazil, in states of São Paulo, Paraná, Santa Catharina, and Rio Grande do Sul; Paraguay; and adjacent parts of Argentina, in provinces of Misiones (San Javier, Santa Ana, Villa Lutetia), Corrientes (Curuzú Cuatia), and Chaco (Riachito Ancho, opposite Corrientes; lower Pilcomayo).<sup>1</sup>

7: Brazil (Iguapé, São Paulo, 1; Joinville, Santa Catharina, 6).

### Genus UROLEUCA Bonaparte

*Uroleuca* Bonaparte, Consp. Gen. Av., 1, p. 379, 1850—type, by subs. desig. (Cabanis, Mus. Hein., 1, p. 225, 1851), *Corvus cyanooleucus* Wied.

*Argurocitta* Heine, Journ. Orn., 8, p. 117, 1860—type, by monotypy, *Corvus cyanooleucus* Wied.

### \**Uroleuca cristatella* (Temminck). PEGA JAY.

*Corvus cyanooleucus* (not of Latham, 1801) Wied, Reise Bras., 2, p. 190, 1821—Fazenda Valo, near the border line of Minas Geraes, Bahia, Brazil (types now in the American Museum of Natural History, New York).

*Corvus tricolor* (not of P. L. S. Müller, 1776) Mikan, Del. Fl. Faun. Bras., Part 2, pl. 10, 1822—Mattodentro, Ypanema, and Rio Verde (São Paulo), and "Curitiba," Paraná (type in Vienna Museum).

*Corvus cristatellus* Temminck, Nouv. Rec. Pl. Col., livr. 33, pl. 193, April, 1823—"Brésil" (location of type not stated); Wied, Beitr. Naturg. Bras., 3, (2), p. 1251, 1831—Campo Geral, on the border line of Minas Geraes and Bahia.

*Corvus splendidus* Lichtenstein, Verz. Doubl. Berliner Mus., p. 21, after Sept., 1823—São Paulo (type in Berlin Museum).

*Cyanocorax cyanooleucus* Pelzeln, Orn. Bras., 3, p. 189, 1870—Mattodentro, Ypanema, Cemeterio [do Lambari], Rio Verde, and Irisanga, São Paulo; Reinhardt, Vidensk. Medd. Naturhist. Foren., 1870, p. 393—Minas Geraes (Lagôa Santa and Sete Lagôas) and Goyaz (Catalão); Allen, Bull. Amer. Mus. N. H., 2, p. 227, 1889 (note on Wied's types).

<sup>1</sup>*C. heckelii* Pelzeln is a purplish-blue color variant not confined to any particular geographic area, as has been pointed out by Berlepsch (Zeits. Ges. Orn., 2, p. 127, 1885) and Hellmayr (Nov. Zool., 13, pp. 305–307, 1906), while *C. inexpectatus* was based on an immature specimen of the verditer blue variety.

*Material examined*.—Paraguay: Sapucay, 3.—Brazil, São Paulo: Iguapé, 4; Itararé, 2; Ypanema, 1; southern São Paulo (type of *C. inexpectatus*), 1.—Paraná: Rio Boraxudo, 3; Roça Nova, Serra do Mar, 2; Scaramuza, 4; Jaguaraíba, 1.—Santa Catharina: Joinville, 6.—Rio Grande do Sul: Taquara do Mundo Novo, 2; São Lourenço, 2.

*Uroleuca cristatella* Burmeister, Syst. Uebers. Th. Bras., 3, p. 286, 1856—Lagôa Santa, Minas Geraes; Hellmayr, Field Mus. Nat. Hist., Zool. Ser., 12, p. 271, 1929—Fazenda Inhuma, Rio Parnahyba, Maranhão; Naumburg, Bull. Amer. Mus. N. H., 60, p. 401, 1930—Matto Grosso (range).

*Uroleuca cyanoleuca* Sharpe, Cat. Bds. Brit. Mus., 3, p. 137, 1877—Brazil (monog.); Allen, Bull. Amer. Mus. N. H., 3, p. 380, 1891—Chapada, Matto Grosso (eggs descr.); Ihering, Rev. Mus. Paul., 3, p. 175, 1899—São Paulo; idem, Cat. Faun. Braz., 1, p. 405, 1907—Rincão, São Paulo; Hellmayr, Nov. Zool., 15, p. 40, 1908—Goyaz (Goyaz and Fazenda Esperança); Reiser, Denks. Math.-Naturwiss. Kl. Akad. Wiss. Wien, 76, p. 79, 1910—Fazenda Riacho da Varzea Grande, Santo Antonio de Gilboez, and Santa Philomena, Piauh; idem, l.c., p. 173, 1925—same localities (habits).

*Range*.—Tableland of Brazil, from extreme southern Maranhão and Piauh south to Minas Geraes and São Paulo, west to Matto Grosso.

11: Brazil (Fazenda Inhuma, Rio Parnahyba, Maranhão, 4; São Marcello, Rio Preto, Bahia, 1; Rio São Miguel, Goyaz, 2; Veadeiros, Goyaz, 1; Baurú, São Paulo, 2; Chapada, Matto Grosso, 1).

### Genus XANTHOURA Bonaparte

*Xanthoura* Bonaparte, Consp. Gen. Av., 1, p. 380, 1850—type, by subs. desig. (Gray, Cat. Gen. Subgen. Bds., p. 62, 1855), *Corvus peruvianus* Gmelin=*Corvus yncas* Boddaert.

*Xanthura* Bonaparte, Proc. Zool. Soc. Lond., 18, "1850," p. 83, pub. March 14, 1851—emendation.

*Xanthocitta* (Bonaparte MS.) Cabanis, Mus. Hein., 1, p. 223, Oct., 1851—emendation of *Xanthoura* Bonaparte.

### \**Xanthoura yncas yncas* (Boddaert). YNCA JAY.

*Corvus yncas* Boddaert, Tabl. Pl. Enl., p. 38, 1783—based on Daubenton, Pl. Enl., pl. 625, Peru.

*Corvus peruvianus* Gmelin, Syst. Nat., 1, (1), p. 373, 1788—based on "Geai du Pérou" of Buffon and Daubenton, Pl. Enl., pl. 625, Peru.

*Pica chloronotos* Wagler, Syst. Av., 1, fol. 21, Genus *Pica*, sp. 12, 1827—Peru (descr. from specimens in the collections of Messrs. Ryals and Leadbeater, London).

*Pica luteola* Lesson, Traité d'Orn., livr. 5, p. 331, 1830—patria ignota (the type in the Paris Museum is from Peru; cf. Pucheran, Rev. Mag. Zool., (2), 5, p. 549, 1853).

*Garrulus peruvianus* Lafresnaye and d'Orbigny, Syn. Av., 2, in Mag. Zool., 8, cl. 2, p. 9, 1838—Apolobamba, Bolivia; Tschudi, Arch. Naturg., 10, (1), p. 293, 1844—Peru.

*Cyanocorax peruanus* Tschudi, Faun. Peru., Aves, p. 232, 1846—subandine forest of the "west" slope of Peru.

*Cyanocorax yncas*<sup>1</sup> Sclater, Proc. Zool. Soc. Lond., 22, p. 114, 1854—Quijos, Ecuador; idem, l.c., 26, p. 72, 1858—Rio Napo, Ecuador; Dubois, Bull. Acad. Roy. Belgique, (2), 38, p. 492, 1874—Bolivia, Peru, and Ecuador; Sclater and Salvin, Proc. Zool. Soc. Lond., 1876, p. 16—Huiro, Dept. Cuzco, Peru; idem, l.c., 1879, p. 609—Tilotilo and Apolobamba, Bolivia; Taczanowski, Orn. Pér., 2, p. 396, 1884—Ropaybamba, Chilpes, Palto, Arenal, Callacate, Guajango, Chirimoto, Huambo, Huiro, and Pangoa, Peru; Taczanowski and Berlepsch, Proc. Zool. Soc. Lond., 1885, p. 86—Machay, Ecuador.

*Xanthura peruviana* Taczanowski, Proc. Zool. Soc. Lond., 1874, p. 524—Chilpes and Ropaybamba, Peru; idem, l.c., 1879, p. 230—Palto and Arenal, Dept. Cajamarca, Peru; idem, l.c., 1882, p. 17—Huambo and Chirimoto, Dept. San Martín, Peru.

*Xanthura yncas* Sharpe, Cat. Bds. Brit. Mus., 3, p. 129, 1877—part, Ecuador and Peru; Sclater, Ibis, 1879, p. 89—part, Ecuador (Maraviña), Peru, and Bolivia (crit.); Berlepsch, Journ. Orn., 37, p. 300, 1889—Tarapoto, Peru; Salvin, Nov. Zool., 2, p. 10, 1895—Malca, Cajabamba, Peru; Salvadori and Festa, Boll. Mus. Zool. Torino, 14, No. 357, p. 31, 1899—San José, Ecuador; Goodfellow, Ibis, 1901, p. 480—Baeza, Ecuador; Ménégau, Rev. Franç. d'Orn., 3, p. 11, 1911—Nuevo Loreto, Peru; Lönnberg and Rendahl, Ark. Zool., 14, No. 25, p. 87, 1922—Baeza, Ecuador.

*Xanthura yncas* Allen, Bull. Amer. Mus. N. H., 2, p. 85, 1889—Yungas, Bolivia; Berlepsch and Stolzmann, Proc. Zool. Soc. Lond., 1896, p. 354—Garita del Sol, Junín, Peru; idem, Orn., 13, p. 85, 1906—San Miguel, Urubamba, Peru.

*Xanthura yncas yncas* Hellmayr and Seilern, Arch. Naturg., 78, A, Heft 5, p. 71, 1912—northern Bolivia to Ecuador (diag.); Bangs and Noble, Auk, 35, p. 457, 1918—Tabaconas, Peru; Chapman, Bull. U. S. Nat. Mus., 117, p. 124, 1921—San Miguel Bridge, Santa Rosa, and Idma, Urubamba, Peru; idem, Bull. Amer. Mus. N. H., 55, p. 701, 1926—Sabanilla, Baeza, lower Sumaco, below Oyacachi and Macas region, Ecuador; Zimmer, Field Mus. Nat. Hist., Zool. Ser., 17, p. 400, 1930—Chinchao, Hacienda Limón, Molinopampa, and Uchco, Peru (crit.).

**Range.**—Subtropical zone of eastern Ecuador, Peru, and northern Bolivia (Yungas of La Paz).<sup>2</sup>

14: Peru (Hacienda Limón, west of Balsas, 9; Molinopampa, 3; Uchco, 1; Chinchao, Dept. Huánuco, 1).

<sup>1</sup> Often spelled "incas."

<sup>2</sup> Setting aside the usual individual variation I do not perceive any constant difference between birds from eastern Ecuador and the northern parts of Peru. The two series agree pretty nearly in size, while two specimens from Junín (Chanchamayo and Garita del Sol, Vitoc) are slightly larger. The Marañón Valley birds have recently been separated as *X. yncas longirostris* Carriker (Proc. Acad. Nat. Sci. Phila., 85, p. 30, March, 1933). No Bolivian material is available. Twenty-five specimens examined.

**\*Xanthoura yncas galeata Ridgway.<sup>1</sup> GALEATED JAY.**

*Xanthoura yncas galeata* Ridgway, Auk, 17, p. 27, 1900—"Western Colombia" (type in U. S. National Museum).

*Cyanocorax yncas*<sup>3</sup> (not *Corvus yncas* Boddaert) Sclater, Proc. Zool. Soc. Lond., 23, p. 153, 1855—Bogotá; Wyatt, Ibis, 1871, p. 330—Ocaña, Santander; Sclater and Salvin, Proc. Zool. Soc. Lond., 1879, p. 510—Retiro, Concordia, and Santa Elena, Antioquia (eggs descr.).

*Xanthura yncas*<sup>4</sup> Sharpe, Cat. Bds. Brit. Mus., 3, p. 129, 1877—part, "New Granada"—Antioquia, Colombia; Sclater, Ibis, 1879, p. 89—part, western Colombia (Antioquia, Bucaramanga) (crit.); Piguët, Mém. Soc. Neuchât. Sci. Nat., 5, p. 809, 1914—Angelopolis, near Medellín, Antioquia.

*Xanthura yncas cyanodorsalis* (not of Dubois) Berlepsch, Journ. Orn., 37, p. 300 (in text), 1889—"Bogotá" (crit.; spec. examined).

*Xanthoura yncas cyanodorsalis* Hellmayr and Seilern, Arch. Naturg., 78, A, Heft 5, p. 71, 1912—"Bogotá" (diag., crit.).

*Xanthoura yncas galeatus* Chapman, Bull. Amer. Mus. N. H., 36, p. 637, 1917—Cerro Munchique, Popayan, Miraflores, Salento, Santa Elena, La Frijolera, El Eden, La Candela, La Palma, Andalucia (west slope), Aguadita, Subia, and Anolaima, Colombia.

*Range*.—Subtropical zone of Colombia (western and central Andes and west slope of eastern Andes).

6: Colombia (Los Jambos, western Andes, 1; Amalfi, Antioquia, 1; west Quindio Andes above Salento, Cauca, 1; Cachiri, Santander, 2; Andalucia, west slope of eastern Andes, Huila, 1).

**\*Xanthoura yncas cyanodorsalis (Dubois).<sup>5</sup> BLUE-BACKED JAY.**

<sup>1</sup> *Xanthoura yncas galeata* Ridgway: Nearly similar to *X. y. yncas*, but immediately distinguished by the much greater development of the frontal crest, which is both longer and more extended. The other points of difference (generally larger size, more bluish-green back, and bluish-tinged hindneck) are at best average characters and cannot be relied upon in every individual case.

Birds from the western slope of the eastern Andes (Andalucia, Anolaima) are precisely similar to others from Antioquia. In native "Bogotá" collections both the present and the next form are met with alike.

*Material examined*.—Antioquia, 3; Amalfi, Antioquia, 1; Los Jambos, western Andes, 1; Salento, central Andes, 8; Cachiri, Santander, 2; Andalucia, 1; Anolaima, 1; "Bogotá," 8.

<sup>2</sup> Chapman (Bull. Amer. Mus. N. H., 36, p. 637, 1917) suggests El Eden, Quindio Trail, central Andes, as type locality.

<sup>3</sup> Often spelled "*incas*."

<sup>4</sup> Often spelled "*incas*."

<sup>5</sup> *Xanthoura yncas cyanodorsalis* (Dubois): Agreeing with *X. y. galeata* in the development of the erect frontal crest, but crown and hindneck—except a restricted post-frontal band—bluish-violet instead of mostly marguerite-yellow or whitish.

This form was erroneously redescribed by Hellmayr and Seilern as *X. y. alticola* owing to a misinterpretation of Dubois's description, the colored figure of the type published in the "Synopsis Avium" being inaccessible at the time. We

*Cyanocorax yncas* var. *cyanodorsalis* Dubois, Bull. Acad. Roy. Belgique, (2), 38, p. 492, 1874—"Nouvelle Grenade" (type in Brussels Museum).

*Xanthura cyanodorsalis* Sclater, Ibis, 1879, pp. 87, 89—"Bogotá," Colombia (crit.).

*Xanthoura yncas* var. *cyanodorsalis* Dubois, Syn. Av., 1, livr. 7, p. 514, pl. 10, fig. 1, 1901—central Colombia to western Venezuela.

*Xanthoura yncas cyanodorsalis* Ridgway, Auk, 17, p. 27, 1900—"Bogotá" and Mérida, Venezuela (crit.); Chapman, Bull. Amer. Mus. N. H., 36, p. 638, 1917—Quetame, eastern slope of eastern Andes, Colombia, and Mérida, Venezuela (crit.).

*Xanthoura yncas alticola* Hellmayr and Seilern, Arch. Naturg., 78, A, Heft 5, p. 72, Sept., 1912—El Valle, Mérida, Venezuela (type in Munich Museum).

**Range.**—Subtropical zone of the eastern slope of the eastern Andes of Colombia and Andes of Mérida, Venezuela.

7: Colombia ("Bogotá,"<sup>1</sup>); Venezuela, Andes of Mérida (Páramo de Tambor, 1; El Valle, 5).

**\**Xanthoura yncas caeruleocephala* (Dubois).<sup>1</sup> BLUE-HEADED JAY.**

*Cyanocorax yncas* var. *caeruleocephala* Dubois, Bull. Acad. Roy. Belgique, (2), 38, p. 493, 1874—Caracas, Venezuela (type in Brussels Museum).

*Xanthura caeruleocephala* Sharpe, Cat. Bds. Brit. Mus., 3, p. 130, 1877—Venezuela and "Trinidad" (errore); Sclater, Ibis, 1879, p. 88—Caripé, Venezuela (crit.).

*Xanthoura caeruleocephala* Phelps, Auk, 14, p. 364, 1897—Cumanacoa and San Antonio, Bermúdez [=Sucre], Venezuela; Robinson and Richmond, Proc. U. S. Nat. Mus., 24, p. 175, 1902—San Julián, near La Guaira, Venezuela.

now agree with Ridgway and Chapman that *cyanodorsalis* was based on a specimen of the eastern form with mostly blue crown. Mérida birds apparently are not separable, although some individuals, including the type of *X. y. andicola*, have pure green upper parts without any bluish tinge, thus approaching *X. y. caeruleocephala*.

**Material examined.**—Colombia: Quetame, 2; "Bogotá," 4.—Venezuela, Andes of Mérida: El Valle, 9; Páramo de Tambor, 1; Mérida, 2.

<sup>1</sup>*Xanthoura yncas caeruleocephala* (Dubois): Easily distinguished from *X. y. cyanodorsalis* by much shorter frontal crest (agreeing in this respect with *X. y. yncas*), much narrower yellowish post-frontal band, and uniform deep blue (not violaceous) crown with the basal portion of the feathers gray instead of yellowish. The back and rump are pure green, very rarely tinged with glaucous, more like typical *yncas*.

Specimens from Sucre agree with others from more western localities. Neither *cyanocapillus* Cabanis nor *chloronota* Wagler can be used for this form, the former having originally been bestowed on Xalapa birds (= *X. y. luxuosa*), while Wagler's term *chloronota* is barred by his earlier *P. chloronotos* (Syst. Av., 1, fol. 21, Genus *Pica*, sp. 12, 1827), a synonym of *Corvus yncas* Boddaert.

**Material examined.**—Sucre: Los Palmales, 1; Campos Alegre, 1; Andes inland of Cumaná, 6.—Loma Redonda: near Caracas, 2.—Aragua: Maracay, 1.—Carabobo: San Esteban, 1; Las Quiguas, 9.

*Xanthoura yncas caeruleocephala* Hellmayr and Seilern, Arch. Naturg., 78, A, Heft 5, pp. 70, 73, 1912—Cumbre Chiquita and Las Quiguas, Carabobo (range; crit.); Chapman, Amer. Mus. Nov., 191, p. 14, 1925—Cuchivano, Neverí, San Antonio, Latal, and Caracas, Sucre, Venezuela.

*Cyanocorax incas* (not *Corvus yncas* Boddaert) Sclater and Salvin, Proc. Zool. Soc. Lond., 1868, p. 167—Caripé, Sucre; idem, l.c., p. 627—San Esteban, Carabobo.

*Pica chloronota* (not *Pica chloronotos* Wagler, 1827) Wagler, Isis, 1829, p. 749—part (descr. of adult).

*Cyanocorax cyanocapillus* Cabanis, in Tschudi, Faun. Peru., Aves, p. 233, 1846—part, [La] Guayra, Venezuela (crit.).

*Xanthocitta cyanocapilla* (not *Cyanocorax cyanocapillus* Cabanis, 1846) Cabanis, Mus. Hein., 1, p. 223, 1851—Puerto Cabello and "Columbien" [= Venezuela] (crit.).

*Xanthoura yncas chloronota* Ridgway, Auk, 17, p. 28, 1900 (crit.).

**Range.**—Subtropical zone of the north coast mountains of Venezuela, from Sucre west to Carabobo.

1: Venezuela (Maracay, Aragua, 1).

**\**Xanthoura yncas guatemalensis* Bonaparte.<sup>1</sup> GUATEMALAN GREEN JAY.**

*Xanthoura guatemalensis* Bonaparte, Consp. Gen. Av., 1, p. 380, 1850—Guatemala (type in Leiden Museum; cf. Schlegel, Mus. Pays-Bas, livr. 9, Coraces, p. 54, 1867).<sup>2</sup>

*Cyanocorax guatemalensis* Sclater and Salvin, Ibis, 1859, p. 22—Cahabon, Guatemala, and Honduras.

*Xanthoura luzuosa* var. *guatemalensis* Ridgway, Amer. Journ. Sci., (3), 4, p. 456, 1872—Yucatan, Guatemala, etc.

*Cyanocorax yncas* var. *cyanocapilla* (not of Cabanis) Dubois, Bull. Acad. Roy. Belgique, (2), 38, p. 493, 1874—part, Guatemala.

*Xanthoura guatemalensis* Chapman, Bull. Amer. Mus. N. H., 8, p. 281, 1896—Chichen Itza, Yucatan (crit.).

*Xanthoura luzuosa cyanocapilla* Stone, Proc. Acad. Nat. Sci. Phila., 1890, p. 208—Tekanto, Izamal, and Ticul, Yucatan; Lantz, Trans. Kansas Acad. Sci., 16, p. 222, 1899—Santo Tomas, Guatemala.

*Xanthura cyanocapilla* Sharpe, Cat. Bds. Brit. Mus., 3, p. 131, 1877—Guatemala (monog.).

*Cyanocorax luctuosus* (sic) Lawrence, Ann. Lyc. Nat. Hist. N. Y., 9, p. 201, 1869—Mérida, Yucatan.

<sup>1</sup> Though widely separated geographically, the Central American Green Jays are clearly conspecific with *X. yncas*. Certain specimens of *guatemalensis* with bright yellow under parts so closely resemble the Venezuelan *X. y. caeruleocephala* as to be almost indistinguishable in coloration.

<sup>2</sup> Sclater's argument (Ibis, 1879, p. 88) that Bonaparte's name cannot apply to the above race on account of his calling the under parts "flavissimus" has been refuted by Ridgway (Auk, 17, p. 29, 1900).



*Cyanocorax luxuosus* (not *Garrulus luxuosus* Lesson) Du Bus, Esq. Orn., livr. 4, text to pl. 18, 1848—part, Vera Paz, Guatemala; Boucard, Ann. Soc. Linn. Lyon, (n.s.), 25, p. 47, 1878—Guatemala.

*Xanthura luxuosa* Selater, Ibis, 1879, p. 88—part, Guatemala and Honduras; Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 502, 1887—part, Yucatan (Mérida), British Honduras (Belize), Guatemala (Cahabon, Yzabal, Choctum, Zapote, Savana Grande, Rio Chiguati, Patio Bolas, and Retalhuleu), and Honduras (Omoa and San Pedro).

*Xanthoura luxuosa guatemalensis* Ridgway, Auk, 17, p. 29, 1900—Guatemala and Honduras (crit.); Cole, Bull. Mus. Comp. Zool., 50, p. 137, 1906—Chichen Itza, Yucatan.

*Xanthoura luxuosa guatemalensis* Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 310, 1904—Yucatan, Campeche, Guatemala, British Honduras, and Honduras (monog., full bibliog.); Griscom, Amer. Mus. Nov., 235, p. 19, 1926—Chunyxache, Yucatan; Austin, Bull. Mus. Comp. Zool., 69, p. 393, 1929—Cayo district, British Honduras.

**Range.**—Yucatan, Campeche, Guatemala (except the Pacific slope), British Honduras, and Honduras.

2: Yucatan (San Felipe, 1; unspecified, 1).

**\*Xanthoura yncas vivida** Ridgway. TEHUANTEPEC GREEN JAY.

*Xanthoura luxuosa vivida* Ridgway, Auk, 17, p. 28, 1900—Pluma, Oaxaca, Mexico (type in U. S. National Museum); idem, Bull. U. S. Nat. Mus., 50, Part 3, p. 309, 1904—southwestern Mexico to northwestern Guatemala (monog., full bibliog.); Dearborn, Field Mus. Nat. Hist., Orn. Ser., 1, p. 111, 1907—Patulul, Guatemala.

*Xanthoura luxuosa* (not *Garrulus luxuosus* Lesson) Lawrence, Mem. Bost. Soc. N. H., 2, p. 285, 1874—Sierra Madre, Colima.

*Xanthura luxuosa* Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 502, 1887—part, Colima (Sierra Madre) and Oaxaca (Cacoprieto and Santa Efigenia).

*Xanthura guatemalensis* (not of Bonaparte) Lawrence, Bull. U. S. Nat. Mus., 4, p. 25, 1876—Santa Efigenia, Oaxaca.

**Range.**—Western Guatemala (Patulul, Nenton) and southwestern Mexico, in states of Chiapas (Guichicovi), Oaxaca (Santa Efigenia, Cacoprieto, Pluma, Santo Domingo, Chimalapa), Michoacan (?), Guerrero (?), and Colima (?).<sup>1</sup>

4: Mexico (Chimalapa, Tehuantepec, Oaxaca, 2); Guatemala (Patulul, 2).

**Xanthoura yncas speciosa** Nelson.<sup>2</sup> JALISCAN GREEN JAY.

<sup>1</sup> We have not seen any material from Chiapas or north of Oaxaca. Two adults from western Guatemala (Patulul) are exact duplicates of the Oaxaca birds, thus substantiating Ridgway's contention that the Guatemalan range of *X. y. guatemalensis* is confined to the eastern parts of that country.

<sup>2</sup> We are not acquainted with this race.

*Xanthoura luzuosa speciosa* Nelson, Auk, 17, p. 265, 1900—San Sebastian, Jalisco, Mexico (type in U. S. National Museum); Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 311, 1904—San Sebastian, Jalisco.

*Range*.—Western Mexico, in State of Jalisco (San Sebastian).

**\**Xanthoura yncas luxuosa* (Lesson). GREEN JAY.**

*Garrulus luzuosus* Lesson, Rev. Zool., 2, p. 100, 1839—Mexico (type in Abeillé Collection, Bordeaux).

*Cyanocorax cyanocapillus* Cabanis, in Tschudi, Faun. Peru., Aves, p. 233 (footnote), 1846—part, Jalapa, Mexico (type in Berlin Museum).

*Cyanocorax luzuosus* Du Bus, Esq. Orn., livr. 4, pl. 18, 1848—part, Jalapa, Mexico; Sclater, Proc. Zool. Soc. Lond., 24, p. 300, 1856—Cordoba, Vera Cruz; idem, l.c., 27, p. 365, 1859—Jalapa, Vera Cruz; idem, l.c., 1864, p. 175—valley of Mexico.

*Xanthoura luzuosa* Sumichrast, Mem. Bost. Soc. N. H., 1, p. 554, 1869—Dept. Vera Cruz; Ferrari-Perez, Proc. U. S. Nat. Mus., 9, p. 153, 1886—Jalapa; Chapman, Bull. Amer. Mus. N. H., 10, p. 30, 1898—Jalapa.

*Xanthura luxuosa* Sharpe, Cat. Bds. Brit. Mus., 3, p. 132, 1877—part, Jalapa; Sclater, Ibis, 1879, p. 88—Mexico (part); Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 502, 1887—part, Guanajuato, valley of Mexico, Puebla (Perote), and Vera Cruz (Cordoba, Jalapa).

*Cyanocorax yncas* var. *luzuosa* Dubois, Bull. Acad. Roy. Belgique, (2), 38, p. 494, 1874—part, Mexico.

*Xanthoura luxuosa luxuosa* Ridgway, Auk, 17, p. 28, 1900—Vera Cruz and Puebla to middle Tamaulipas and Nuevo Leon (crit.); idem, Bull. U. S. Nat. Mus., 50, Part 3, p. 306, 1904 (monog., full bibliog.); Bangs and Peters, Bull. Mus. Comp. Zool., 67, p. 487, 1927—Presidio and Motzorongo, Vera Cruz.

*Pica chloronota* (not *Pica chloronotos* Wagler, 1827) Wagler, Isis, 1829, p. 749—Mexico (part, descr. of "mas junior").

*Range*.—Eastern Mexico, in states of Vera Cruz, Puebla, Mexico, Guanajuato, San Luis Potosi, Nuevo Leon, and in southern Tamaulipas (Alta Mira, Tampico).

21: Mexico, Vera Cruz (Jalapa, 1; Pueblo Viejo, 3; Coatepec, 1); San Luis Potosi (Valles, 8); Nuevo Leon (Topochico, 1); Tamaulipas (Tampico, 7).

**\**Xanthoura yncas glaucescens* Ridgway.<sup>1</sup> RIO GRANDE GREEN JAY.**

<sup>1</sup>*Xanthoura yncas glaucescens* Ridgway is a very unsatisfactory race, and I am not at all certain that the ranges as outlined for this and the preceding form can be accepted as final. A good many specimens from Valles, San Luis Potosi, listed under *X. y. luzuosa* appear to be inseparable from those of Texas, while others can be matched by birds from Vera Cruz. Phillips refers specimens from the vicinity of Victoria, Tamaulipas, to *glaucescens*. Ridgway, however, restricts the Mexican range of this form to extreme northern Nuevo Leon and Tamaulipas (Matamoros), and includes Victoria as well as Monterey (Nuevo Leon) in the area assigned to *luzuosa*. The last word apparently has not been said on this subject.

*Xanthoura luctuosa glaucescens* Ridgway, Auk, 17, p. 28, 1900—Fort Brown, Texas (type in U. S. National Museum); idem, Bull. U. S. Nat. Mus., 50, Part 3, p. 303, 1904—lower Rio Grande Valley, southern Texas, northern Tamaulipas, and northern Nuevo Leon (monog., full bibliog.); Phillips, Auk, 28, p. 82, 1911—Matamoros, San Fernando, Rio Martinez, and Rio Cruz, Tamaulipas; Griscom and Crosby, Auk, 43, p. 22, 1926—Brownsville and Lomita, Texas (breeding).

*Xanthura luxuosa* Sharpe, Cat. Bds. Brit. Mus., 3, p. 132, 1877—part, Texas; Selater, Ibis, 1879, p. 88—part, Texas; Sennett, Bull. U. S. Geol. Geog. Surv., 4, p. 29, 1878—Brownsville and Hidalgo, Texas (habits, nest, and eggs descr.); Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 502, 1887—part, Rio Grande Valley, Texas, and Nuevo Leon (San Diego).

*Cyanocorax yncas* var. *luxuosa* Dubois, Bull. Acad. Roy. Belgique, (2), 38, p. 492, 1874—part, Texas.

**Range.**—Southern Texas (lower Rio Grande Valley), adjoining section of Nuevo Leon (San Diego, Rodriguez), and northern and central Tamaulipas (Matamoros, San Fernando, Rio Martinez, Rio Cruz).

5: Texas (Fort Brown, 1; Brownsville, 2; Harlingen, 1; Cameron County, 1).

### Genus **CISSILOPHA** Bonaparte<sup>1</sup>

*Cissilopha* Bonaparte, Consp. Gen. Av., 1, p. 380, 1850—type, by monotypy, *Pica san-blasiana* Lafresnaye.

### **Cissilopha san-blasiana san-blasiana** (Lafresnaye). ACAPULCO JAY.

*Pica san-blasiana* Lafresnaye,<sup>2</sup> Mag. Zool., (2), 4, Ois., pl. 28, 1842—part, Acapulco, Mexico (type in coll. Lafresnaye, now in Museum of Comparative Zoology, Cambridge, Mass.).

*Cyanocorax san-blasianus* Prévost and Des Murs, Voy. Vénus, 5, Zool., p. 200, 1849—part, Acapulco.

*Cissilopha pulchra* Nelson, Auk, 14, p. 56, 1897—Acapulco, Guerrero (type in U. S. National Museum).

*Cissilopha san-blasiana pulchra* Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 314, 1904—State of Guerrero, Mexico (monog.).

*Cissilopha sanblasiana sanblasiana* Bangs and Penard, Bull. Mus. Comp. Zool., 63, p. 39, 1919—Acapulco (crit.).

<sup>1</sup> In spite of their conspicuous structural differences it is not at all unlikely that the members of this genus may prove to be conspecific, as they appear to replace each other geographically.

<sup>2</sup> Although Lafresnaye quotes the "Geai de San-Blas" (Rev. Zool., 3, p. 290, 1840), it is evident, as has been pointed out by Bangs and Penard (Bull. Mus. Comp. Zool., 63, p. 39, 1919), that he described his own specimen secured by Leclancher at Acapulco (cf. Rev. Zool., 3, p. 323, 1840), which, therefore, becomes the type notwithstanding the misleading specific name.

*Cyanocitta sanblasiana* Sclater and Salvin, Proc. Zool. Soc. Lond., 1876, p. 269—part, Acapulco.

*Xanthura sanblasiana* Sharpe, Cat. Bds. Brit. Mus., 3, p. 132, 1877—part.

*Cyanolyca sanblasiana* Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 496, 1887—part, Acapulco.

*Range*.—Southwestern Mexico, in State of Guerrero (Acapulco).

**\**Cissilopha san-blasiana nelsoni* Bangs and Penard.<sup>1</sup> SAN-BLAS JAY.**

*Cissilopha san-blasiana nelsoni* Bangs and Penard, Bull. Mus. Comp. Zool., 63, p. 40, 1919—Colima, Mexico (type in Museum of Comparative Zoology, Cambridge, Mass.); McLellan, Proc. Calif. Acad. Sci., (4), 16, p. 51, 1927—San Blas, Nayarit; Bangs, Bull. Mus. Comp. Zool., 70, p. 426, 1930—Colima.

"Geai de San-Blas" Néboux, Rev. Zool., 3, p. 290, 1840—San-Blas, Mexico.

*Pica san-blasiana* Lafresnaye, Mag. Zool., (2), 4, Ois., text to pl. 28, 1842—part, San-Blas (ex Néboux).

*Cyanocorax san-blasianus* Prévost and Des Murs, Voy. Vénus, 5, Zool., p. 200, 1849—part, San-Blas.

*Cissolopha sanblasiana* Lawrence, Mem. Bost. Soc. N. H., 2, p. 284, 1874—plains of Colima, Manzanilla Bay, and Los Trochos, Colima.

*Cissilopha sanblasiana* Coues, Bull. U. S. Nat. Mus., 7, p. 11, 1877—Mita Point, "Sinaloa"—Nayarit.

*Cyanocitta sanblasiana* Sclater and Salvin, Proc. Zool. Soc. Lond., 1876, p. 269—part, San Blas, Colima, Manzanilla Bay, and Los Trochos (crit.).

*Xanthura sanblasiana* Sharpe, Cat. Bds. Brit. Mus., 3, p. 132, 1877—western Mexico (part).

*Cyanolyca sanblasiana* Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 496, 1887—part, San Blas, Colima, Manzanilla Bay, and Los Trochos.

*Cissilopha san-blasiana san-blasiana* Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 313, 1904—states of Jalisco, Colima, and Tepic (monog.).

*Range*.—Southwestern Mexico, in states of Nayarit, Jalisco, and Colima.

12: Mexico (Colima, 12).

**\**Cissilopha beecheii*<sup>2</sup> (Vigors).<sup>3</sup> BEECHEY'S JAY.**

*Pica beecheii* Vigors, Zool. Journ., 4, No. 15 (Oct., 1828 to Jan., 1829), p. 353, 1829—"Montereale" (type evidently lost); idem, Zool. Voy. "Blossom," p. 22, pl. 6, 1839—"Montereale."

<sup>1</sup>*Cissilopha san-blasiana nelsoni* Bangs and Penard: Similar to the typical form, but smaller; upper parts bright cerulean blue instead of rich ultramarine or cyanine blue; under tail coverts and thighs dull ultramarine blue instead of cyanine blue.

<sup>2</sup> Various spelled *beecheyi*, *beecheyii*, or *beecheii*.

<sup>3</sup>*Cissilopha beecheii* (Vigors) is closely related to *C. san-blasiana*, but differs by much larger size, the absence of the frontal crest of narrow, elongated feathers, and the rich smalt blue color of the back, wings, and tail.

*Cyanocorax beecheii* Prévost and Des Murs, Voy. Vénus, 5, Zool., p. 203, 1849—"Monterey, California."

*Cyanocorax beecheii* Finsch, Abhandl. Naturw. Ver. Bremen, 1, p. 333, 1870—Mazatlan, Sinaloa.

*Cyanocitta beecheii* Lawrence, Mem. Bost. Soc. N. H., 2, p. 283, 1874—Mazatlan and "Tres Marias Islands" (habits); Sclater and Salvin, Proc. Zool. Soc. Lond., 1876, p. 270—Mazatlan, Sinaloa, and "Tres Marias Islands" (crit.).

*Xanthura beecheii* Sharpe, Cat. Bds. Brit. Mus., 3, p. 133, 1877—northwestern Mexico.

*Cyanolyca beecheii* Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 497, 1887—Mazatlan, San Blas, and "Tres Marias"; Lantz, Trans. Kansas Acad. Sci., 16, p. 222, 1899—Culiacan, Sinaloa.

*Cissilopha beecheii* Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 316, 1904—states of Sinaloa and Sonora, northwestern Mexico (monog.); Miller, Bull. Amer. Mus. N. H., 21, p. 358, 1905—Caletie, Escuinapa, and Juanna Gomez River, Sinaloa; McLellan, Proc. Calif. Acad. Sci., (4), 16, p. 51, 1927—Labrados, Sinaloa; van Rossem, Trans. San Diego Soc. N. H., 6, p. 270, 1931—Chinobampo and Guiracoba, Sonora (crit.).

*Cyanocitta crassirostris* [sic] Bonaparte,<sup>1</sup> Consp. Gen. Av., 1, p. 378, 1850—"eastern Mexico" (location of type not stated).

*Cyanocorax geoffroyi* Bonaparte, Compt. Rend. Acad. Sci. Paris, 31, p. 564, 1850—"San Blasio, Californie" (type in Paris Museum).

**Range.**—Northwestern Mexico, in states of Sonora (north to Alamos) and Sinaloa.<sup>2</sup>

1: Mexico, Sinaloa (Mazatlan, 1).

**\**Cissilopha yucatanica* (Dubois).<sup>3</sup> YUCATAN JAY.**

*Cyanocitta yucatanica* Dubois, Bull. Acad. Roy. Belgique, (2), 40, p. 13, 1875—Yucatan (type in Brussels Museum); Salvin and Godman, Biol. Centr.-Amer., Aves, 1, pl. 35, 1887.

*Cyanocitta germana* Sclater and Salvin, Proc. Zool. Soc. Lond., 1876, p. 270—Belize, British Honduras (type now in British Museum).

*Corvus cimiciphagus* Dondé, La Emulación, 3, No. 16, p. 13, 1878—Yucatan.

*Corvus (Pica) beecheii* (not of Vigors) Eyndoux and Gervais, Mag. Zool., 6, cl. 2, pl. 36, 1836—"Californie"; idem, Voy. Favorite, Zool., 5, (2), p. 52, pl. 20, 1839—"Californie" (cf. Pucheran, Rev. Mag. Zool., (3), 1, p. 196, 1858).

<sup>1</sup> Bonaparte's species seems to have been based on an example of Beechey's Jay, while his *C. beecheii* evidently refers to the juvenile plumage of *C. yucatanica*.

<sup>2</sup> The indication "Tres Marias Islands" is probably an error (cf. Nelson, N. Amer. Fauna, 14, p. 50, 1899). Other incorrect quotations for this species are "Monterey, California" and "San Blas," if the latter was intended for the city of that name in Nayarit. The word "Montereale" probably refers to a type of forest rather than a locality.

<sup>3</sup> *Cissilopha yucatanica* (Dubois) is exceedingly close to *C. san-blasiana*, the only difference of consequence being the less elongated frontal feathers. I have hardly any doubt as to its being conspecific.

*Cyanocitta crassirostris* (not of Bonaparte) Moore, Proc. Zool. Soc. Lond., 27, p. 57, 1859—Old River, near Belize, British Honduras; Salvin, Ibis, 1861, p. 353—Guatemala and Belize; Lawrence, Ann. Lyc. Nat. Hist. N. Y., 9, p. 201, 1869—Yucatan.

*Xanthura yucatanica* Sharpe, Cat. Bds. Brit. Mus., 3, p. 133, 1877—[British Honduras and Yucatan.

*Cyanolyca yucatanica* Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 498, 1887—Yucatan, Meco and Mugerres Islands, British Honduras (Old River) and Guatemala (near Lake Yaxhá); Salvin, Ibis, 1888, p. 265—Islands of Meco and Mugerres.

*Cissolopha yucatanica* Stone, Proc. Acad. Nat. Sci. Phila., 1890, p. 208—Shkolak, Yucatan; Chapman, Bull. Amer. Mus. N. H., 8, p. 282, 1896—Chichen Itza, Yucatan (crit., habits).

*Cissolopha yucatanica* Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 315, 1904—Yucatan (including islands of Meco and Mugerres), British Honduras, eastern Guatemala (Petén district), and Tabasco (Frontera); Cole, Bull. Mus. Comp. Zool., 50, p. 137, 1906—Chichen Itza, Yucatan; Griscom, Amer. Mus. Nov., 235, p. 19, 1926—eastern Yucatan.

**Range.**—Yucatan (including islands of Meco and Mugerres), British Honduras, eastern Guatemala (Lake Yaxhá, Petén district), and southeastern Mexico, in State of Tabasco.

18: Yucatan (Rio Lagatos, 8; San Felipe, 2; Peto, 2; Ticul, 1; Jilam, 1; Mérida, 1; unspecified, 3).

**\**Cissilopha melanocyanea melanocyanea* (Hartlaub). HARTLAUB'S JAY.**

*Garrulus (Cyanocorax) melanocyaneus* Hartlaub, Rev. Zool., 7, p. 215, 1844—Guatemala (type in Bremen Museum).

(?) *Cyanocorax melanocyaneus* Sclater, Proc. Zool. Soc. Lond., 26, p. 359, 1858—near "Siguitepeque," Honduras; (?) Taylor, Ibis, 1860, p. 112—between Siguatepeque and Taulevi, Honduras; Schlegel, Mus. Pays-Bas, livr. 9, Coraces, p. 45, 1867—"Colombie" and Guatemala (diag.).

*Cyanocitta melanocyanea* Sclater and Salvin, Ibis, 1859, p. 21, pl. 5, fig. 6—Dueñas, Guatemala (nesting habits, eggs); Owen, Ibis, 1861, p. 63—San Gerónimo, Guatemala; Boucard, Ann. Soc. Linn. Lyon, (n.s.), 25, p. 47, 1878—Guatemala.

*Xanthura melanocyanea* Sharpe, Cat. Bds. Brit. Mus., 3, p. 134, pl. 6, 1877—Guatemala.

*Cyanolyca melanocyanea* Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 498, 1887—part, Guatemala (Dueñas, Volcan de Fuego, Santa Maria below Quetzaltenango, San Gerónimo, Tactic, Coban) and (?) Honduras (between Siguatepeque and Taulevi); Lantz, Trans. Kansas Acad. Sci., 16, p. 222, 1899—Palin and Amatitlan, Guatemala.

*Cissolopha melanocyanea* Stone, Proc. Acad. Nat. Sci. Phila., 1891, p. 444—Coban, Vera Paz, Guatemala; Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 317, 1904—part, Guatemala, Salvador, and (?) Honduras (monog.);

Dearborn, Field Mus. Nat. Hist., Orn. Ser., 1, p. 111, 1907—Fiscal, Lake Amatitlan, and Lake Atitlan, Guatemala.

*Range*.—Highlands of Guatemala, El Salvador, and (?) Honduras.<sup>1</sup>

9: Guatemala (Laguna, 3; Lake Atitlan, 3; Lake Amatitlan, 1; Tecpam, 1); El Salvador ("San Salvador," 1).

**\**Cissilopha melanocyanea chavez* Miller and Griscom.<sup>2</sup> CHAVEZ'S JAY.**

*Cissilopha melanocyanea chavez* Miller and Griscom, Amer. Mus. Nov., 184, p. 8, 1925—Matagalpa, Nicaragua (type in the American Museum of Natural History, New York).

*Cyanocitta melanocyanea* (not *Garrulus melanocyaneus* Hartlaub) Sclater, Ibis, 1873, p. 373—Chontales, Nicaragua.

*Cyanolyca melanocyanea* Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 498, 1887—part, Nicaragua (Chontales).

*Cissilopha melanocyanea* Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 317, 1904—part, Nicaragua (Chontales).

*Range*.—Highlands of Nicaragua.

1: Nicaragua (San Rafael del Norte, 1).

**Genus CYANOLYCA Cabanis**

*Cyanolyca* Cabanis, Mus. Hein., 1, p. 223, Oct., 1851—type, by subs. desig. (Gray, Cat. Gen. Subgen. Bds., p. 62, 1855), *Cyanocorax armillatus* Gray.

***Cyanolyca viridi-cyana viridi-cyana* (Lafresnaye and d'Orbigny).  
BLUE-GREEN JAY.**

*Garrulus viridi-cyanus* Lafresnaye and d'Orbigny, Syn. Av., 2, in Mag. Zool., 8, cl. 2, p. 9, 1838—Yungas, Bolivia (type from "La Paz" in Paris Museum examined).

*Garrulus viridi-cyaneus* d'Orbigny, Voy. Amér. Mérid., Ois., p. 368, pl. 53, fig. 1, 1844—Cajapi, eastern slope of Cordillera of La Paz, Bolivia.

*Cyanocitta viridi-cyanus* Bonaparte, Consp. Gen. Av., 1, p. 378, 1850—Bolivia.

*Cyanocitta viridicyanea* Sclater and Salvin, Proc. Zool. Soc. Lond., 1879, p. 609—Cajapi, Ramosani, and Tilotilo, Yungas of La Paz, Bolivia.

<sup>1</sup> A single specimen from Salvador agrees with the Guatemalan series. Birds from Honduras, whence we have no material, appear to be intermediate between *melanocyanea* and *chavez*. Cf. the remarks by Ridgway and those by Miller and Griscom.

<sup>2</sup> *Cissilopha melanocyanea chavez* Miller and Griscom: Similar to *C. m. melanocyanea*, but black areas extending on the upper back and all over the breast; belly and under tail coverts much darker, deep dusky Prussian blue, instead of light grayish glaucous blue; upper parts, especially the back, darker, more cobalt blue.

*Xanthura viridicyanea* Sharpe, Cat. Bds. Brit. Mus., 3, p. 134, 1877—part, Bolivia.

*Cyanolyca viridicyanea viridicyanea* W. L. Sclater, Ibis, 1917, p. 466, pl. 8, fig. 2—Bolivia.

*Range*.—Temperate zone of western Bolivia (depts. of La Paz and Cochabamba).<sup>1</sup>

**\**Cyanolyca viridi-cyana cyanolaema* Hellmayr.<sup>2</sup> BLUE-THROATED JAY.**

*Cyanolyca viridicyana cyanolaema* Hellmayr, Verh. Orn. Ges. Bay., 13, No. 1, p. 107, Feb., 1917—Chuhuasi, fifteen miles north of Ollachea, near Macusani, Carabaya, Peru (type in Munich Museum); idem, Arch. Naturg., 85, A, Heft 10, p. 36, 1920—Chuhuasi and Huasampilla, Peru (crit.).

*Cyanolyca viridicyanea cuzcoensis* W. L. Sclater, Ibis, (10), 5, p. 465, pl. 8, fig. 1, Oct., 1917—Huasampilla, Dept. Cuzco, Peru (type in British Museum); Chapman, Bull. U. S. Nat. Mus., 117, p. 124, 1921—Torontoy, Urubamba, Peru.

*Cyanocitta viridicyanea* (not *Garrulus viridi-cyanus* Lafresnaye and d'Orbigny) Sclater and Salvin, Proc. Zool. Soc. Lond., 1873, pp. 185, 780—Huasampilla, near Cosnipata, Dept. Cuzco, Peru; Taczanowski, Orn. Pér., 2, p. 400, 1884—part, Huasampilla and Sierra, Peru (excl. description).

*Xanthura viridicyanea* Sharpe, Cat. Bds. Brit. Mus., 3, p. 134, 1877—part, Huasampilla, Peru.

*Xanthura jolyaea* (not *Cyanocitta jolyaea* Bonaparte) Berlepsch and Stolzmann, Ornith., 13, p. 85, 1906—Tambillo, near Santa Ana, Urubamba, Peru.

*Range*.—Temperate zone of southeastern Peru, in depts. of Cuzco (Huasampilla, Tambillo, and Torontoy, Urubamba Valley; Quispichancio, Marcapata) and Puno (Chuhuasi, Carabaya).

2: Peru (Quispichancio, Marcapata, 2).

<sup>1</sup> Characteristic of this form are the greenish blue (verditer blue) general plumage and the blackish throat, which is either opaque or but faintly shaded with dull greenish blue.

*Material examined*.—Bolivia, Dept. La Paz: Chaco, 6; Sandillani, 1; Tanampaya, 1; Posana, 1.—Dept. Cochabamba: Cocapata, 1; San Cristobal, 2.

<sup>2</sup> *Cyanolyca viridi-cyana cyanolaema* Hellmayr: Nearest to *C. v. viridi-cyana*, but slightly smaller; coloration much more bluish, this difference being particularly noticeable on the posterior part of the pileum and on the sides of the neck; throat and foreneck rich indigo blue instead of black tinged with dull greenish. Wing (four adults), 132–135; tail, 153–168; bill, 28–30.

This is a well-marked form, the most striking character being the dark blue throat. The term "ultramarine blue" employed by both Hellmayr and Sclater for this part of the plumage is, however, utterly misleading. Two immature birds from Marcapata are more greenish blue than the typical examples, but the coloration of the throat, though somewhat duller, suggests that of the definite plumage.



\**Cyanolyca viridi-cyana jolyaea* (Bonaparte).<sup>1</sup> JOLY'S JAY.

*Cyanocitta jolyaea* Bonaparte, Tageblatt der 29. Versaml. Deuts. Naturf. und Aerzte in Wiesbaden, Beilage, p. 89, Sept. 25, 1852—South America (type from Peru<sup>2</sup> in Paris Museum examined); idem, Journ. Orn., 1, p. 47, 1853 (reprint of orig. descr.); Taczanowski, Proc. Zool. Soc. Lond., 1874, p. 524—Higos, Dept. Junín, Peru; Selater and Salvin, l.c., 1873, p. 271—Peru (crit.); Taczanowski, l.c., 1882, p. 17—Tamiapampa, near Chachapoyas, Dept. Amazonas; idem, Orn. Pér., 2, p. 401, 1884—Higos, Tamiapampa, Pangoa, etc., Peru.

*Cyanocorax viridi-cyanus* (not *Garrulus viridi-cyanus* Lafresnaye and d'Orbigny) Tschudi, Faun. Peru., Aves, p. 233, 1846—Sierra region of Peru, alt. 10,000 feet.

*Xanthura jolyaea* Sharpe, Cat. Bds. Brit. Mus., 3, p. 135, 1877—Junín district of Peru.

*Xanthoura jolyaea* Berlepsch and Stolzmann, Proc. Zool. Soc. Lond., 1896, p. 354—Tambo de Aza (Maraynioc), Junín.

*Cyanolyca viridi-cyana jolyaea* Zimmer, Field Mus. Nat. Hist., Zool. Ser., 17, p. 400, 1930—Panao, Huánuco, Peru (crit.).

*Range*.—Temperate zone of central and northern Peru, from Dept. Junín north to Amazonas (Tamiapampa, Molinopampa).

10: Peru (Panao Mountains, Huánuco, 5; ten miles east of Molinopampa, Amazonas, 5).

*Cyanolyca viridi-cyana angelae* Salvadori and Festa.<sup>3</sup> ANGELA'S BLUE JAY.

*Cyanolyca angelae* Salvadori and Festa, Boll. Mus. Zool. Torino, 14, No. 357, p. 30, 1899—Pun, northeastern Ecuador (type in Turin Museum examined); Chapman, Bull. Amer. Mus. N. H., 55, p. 702, 1926—Pun (ex Salvadori and Festa).

<sup>1</sup>*Cyanolyca viridi-cyana jolyaea* (Bonaparte): Nearly allied to *C. v. cyano-laema*, but larger; coloration much deeper and more purplish blue; the post-frontal band tinged with pale bluish or grayish, not silvery white; throat and foreneck dark dull bluish violet, passing into deep aniline lilac anteriorly; jugular band tinged with bluish, etc. Wing, 140–145, (female) 137–142; tail, 175–185, (female) 170–178; bill, 26–28.

The type, while not fully adult, is in sufficiently advanced state to show its pertinence to the present form. It was directly compared with several specimens selected from our series for that purpose.

In addition to our own material, we have examined an adult male from Tamiapampa and an adult female from Maraynioc (Tambo de Aza).

<sup>3</sup>Zimmer (Field Mus. Nat. Hist., Zool. Ser., 17, p. 401, 1930) suggests Molinopampa as type locality.

<sup>3</sup>*Cyanolyca viridi-cyana angelae* Salvadori and Festa: Very close to *C. v. quindiuna*, but coloration of upper and under parts decidedly deeper and more bluish; the back, breast, and abdomen being dark tyrian blue (slightly shaded with violaceous) instead of orient blue, the rump and upper tail coverts orient blue rather than deep orient blue, and the tail feathers as well as the external margins of the remiges slightly more bluish, less greenish. The upper parts of the head and the throat are likewise distinctly more violaceous, and in tone closely

*Cyanolyca armillata quindiuna* (not of Sclater and Salvin) Chapman, Bull. Amer. Mus. N. H., 36, p. 639, 1917—part, Valle de las Pappas, Colombia.

*Range*.—Temperate zone of extreme northern Ecuador (Pun, on the Rio Chingual, Prov. Carchi) and extreme southern Colombia (Valle de las Pappas, south of Popayan, in the central Andes, State of Huila).

***Cyanolyca viridi-cyana quindiuna* (Sclater and Salvin).<sup>1</sup> QUINDIO BLUE JAY.**

[*Cyanocitta armillata*]  $\gamma$  *quindiuna* Sclater and Salvin, Proc. Zool. Soc. Lond., 1876, p. 272—Cordillera of Quindio, central Andes, Colombia (type now in British Museum).

*Xanthura quindiuna* Sharpe, Cat. Bds. Brit. Mus., 3, p. 135, pl. 8, 1877—Cordillera of Quindio, Colombia.

*Cyanolyca armillata quindiuna* Chapman, Bull. Amer. Mus. N. H., 36, p. 639, 1917—part, Laguneta, Santa Isabel, and Salento, central Andes, Colombia (crit.).

*Range*.—Temperate zone of the Cordillera of Quindio, in the central Andes of Colombia.

**\**Cyanolyca viridi-cyana armillata* (Gray). ARMILLATED JAY.**

*Cyanocorax armillatus* Gray, in Gray and Mitchell, Genera of Birds, 2, pl. 74, 1845—no locality indicated (the type in the British Museum is from "Bogotá," Colombia); Sclater, Proc. Zool. Soc. Lond., 23, p. 153, 1855—Bogotá; Schlegel, Mus. Pays-Bas, livr. 9, Coraces, p. 48, 1867—Bogotá (crit.).

*Cyanocitta armillata* Bonaparte, Cons. Gen. Av., 1, p. 378, 1850—Santa Fé de Bogotá; Sclater, Cat. Coll. Amer. Bds., p. 144, 1862—Bogotá; Wyatt, Ibis, 1871, p. 330—Andes of Santander, Colombia.

resemble the corresponding parts of *C. v. armillata*. Wing, 137–146; tail, 170–180; bill, 29.

Two specimens from the Valle de las Pappas are absolutely identical with one of the typical examples courteously loaned by Dr. Enrico Festa from the collection of the Turin Museum, and differ markedly from two Quindio birds. *C. v. angelae* partakes of the large, heavy bill of *C. v. quindiuna*, but in coloration marks a decided step in the direction of *C. v. armillata*, the latter being, however, easily recognizable by its deep grayish violet blue plumage.

The section embracing *armillata*, *quindiuna*, *meridana*, and *angelae* differs from its Peruvian and Bolivian allies by the whitish jugular crescent being replaced by a black band and by lacking the silvery post-frontal area. In structure, notably in graduation of tail, the two groups are, however, perfectly alike, and, as *C. v. angelae* in general coloration is very nearly matched by certain individuals of *C. v. jolyaea*, I have no hesitation in classifying them in a single specific unit.

*Material examined*.—Ecuador: Pun, 1.—Colombia: Valle de las Pappas, Huila, 2.

<sup>1</sup>*Cyanolyca viridi-cyana quindiuna* (Sclater and Salvin): Easily distinguished from *C. v. armillata* by larger bill and greenish blue instead of violaceous general coloration. The upper part of the head and throat are likewise more bluish, less violet.

*Material examined*.—Colombia, western Andes: Cordillera of Quindio, 2; Laguneta, 1.

[*Cyanocitta armillata*] *β bogotana* Sclater and Salvin, Proc. Zool. Soc. Lond., 1876, p. 272—Bogotá and Pamplona, Santander (crit.).

*Cyanolyca armillata armillata* Chapman, Bull. Amer. Mus. N. H., 36, p. 639, 1917—Anolaima and Choachi, Bogotá region, Colombia.

*Xanthura armillata* Sharpe, Cat. Bds. Brit. Mus., 3, p. 136, 1877—Bogotá (crit.).

*Range*.—Temperate zone of the eastern Andes of Colombia (Bogotá region; Pamplona and Páramo de Tamá, Santander).<sup>1</sup>

2: Colombia (Páramo de Tamá, Santander, 2).

**\**Cyanolyca viridi-cyana meridana* (Sclater and Salvin).<sup>2</sup> MÉRIDA BLUE JAY.**

[*Cyanocitta armillata*] *α meridana* Sclater and Salvin, Proc. Zool. Soc. Lond., 1876, p. 271—upper wood region of Mérida, Venezuela (type now in the British Museum).

*Cyanocitta armillata* (not *Cyanocorax armillatus* Gray) Sclater and Salvin, Proc. Zool. Soc. Lond., 1870, p. 781—Páramo de Culata, Mérida.

*Cyanocitta armillata* var. *meridana* Oustalet, Ornith., 11, p. 204, 1901—Mérida (alt. 4,000 meters).

*Xanthura meridana* Sharpe, Cat. Bds. Brit. Mus., 3, p. 136, 1877—Andes of Mérida (crit.).

*Range*.—Temperate zone of the Andes of Mérida, western Venezuela.

3: Venezuela, Mérida (La Cuchilla, 2; Rio Mucujón, 1).

***Cyanolyca turcosa* (Bonaparte).<sup>3</sup> TURQUOISE JAY.**

<sup>1</sup> *Additional material examined*.—Colombia: "Bogotá," 6.

<sup>2</sup> *Cyanolyca viridi-cyana meridana* (Sclater and Salvin): Exceedingly close to *C. v. armillata*, but general coloration more purplish; pileum and hindneck barely lighter (about light dull bluish violet) than the back, whereas in *armillata* the more bluish (Campanula blue) upper part of the head contrasts conspicuously with the rest of the dorsal surface; throat also more purplish blue.

Nine specimens from the Andes of Mérida examined.

<sup>3</sup> *Cyanolyca turcosa* (Bonaparte) differs from the *C. viridi-cyana* group by smaller size and decidedly shorter as well as much less graduated tail. While the coloration of the body plumage varies between the "Gobelin blue" of the Bolivian *C. v. viridi-cyana* and the "deep orient blue" of *C. v. quindiana*, the pileum and throat are much paler than in any form of that group, being "King's blue" to "Neropalín blue."

Two skins of the unmistakable "Bogotá" preparation are indistinguishable from Ecuadorian specimens. As Sclater also lists the species from "Bogotá," the occurrence of this jay somewhere in the eastern Andes of Colombia can hardly be questioned, although no authentically collected individuals from that country are on record. The fact, however, that Festa discovered a race of *C. viridi-cyana* (*angelae*) in the Temperate zone of Ecuador, where the Turquoise Jay is widely diffused, seems to speak for the specific distinctness of *C. turcosa*.

*Material examined*.—Colombia: "Bogotá," 2.—Ecuador: La Concepción (Chota), 2; Papallacta, 3; "Nanegal," 1; Loreto, 1; Baños, 3; "Quito," 2; unspecified, 5.

- Cyanocitta turcosa* Bonaparte, Compt. Rend. Acad. Sci. Paris, 37, p. 830, 1853—"de Colombie et de l'Equateur" (type from "Colombie" in Paris Museum examined); idem, Not. Orn. Coll. Delattre, p. 8, 1854—"Colombie et Equateur"; Sclater, Proc. Zool. Soc. Lond., 26, p. 552, 1858—Matos, Ecuador; idem, l.c., 28, p. 88, 1860—above Puellaro and Chillo Valley, Ecuador; idem, Cat. Coll. Amer. Bds., p. 144, 1862—Ecuador and "Bogotá"; Berlepsch and Taczanowski, Proc. Zool. Soc. Lond., 1884, p. 294—La Union, Ecuador; idem, l.c., 1885, p. 86—San Rafael, Ecuador.
- Cyanocorax turcosus* Sclater, Proc. Zool. Soc. Lond., 25, p. 18, 1857—"Bogotá"; Schlegel, Mus. Pays-Bas, livr. 9, Coraces, p. 48, 1867—"Nouvelle Grenade" (crit.).
- Xanthura turcosa* Sharpe, Cat. Bds. Brit. Mus., 3, p. 135, pl. 7, 1877—Ecuador and "Bogotá"; Goodfellow, Ibis, 1901, p. 480—west side of Pichincha, "Mindó," "Nanegal," and Papallacta, Ecuador.
- Cyanolyca turcosa* Salvadori and Festa, Boll. Mus. Zool. Torino, 14, No. 357, p. 30, 1899—Huaca, La Concepción (Chota Valley), "Nanegal," Papallacta, and Cañar, Ecuador; Ménégau, Miss. Serv. Géog. Armée Mes. Arc Mérid. Equat., 9, p. B 109, 1911—Frutillas, Ecuador; Lönnberg and Rendahl, Ark. Zool., 14, No. 25, p. 87, 1922—below Nono and Piganta (Mojanda), Ecuador; Chapman, Bull. Amer. Mus. N. H., 55, p. 701, 1926—Chunchi, Pagma Forest, Taraguacocha, El Paso, Loja, upper Sumaco, and above Baeza, Ecuador, and El Tambo, Peru; Berlioz, Bull. Mus. Hist. Nat. Paris, 33, p. 76, 1927—Pilon, Ecuador.

*Range*.—Temperate zone of extreme northern Peru (El Tambo, near Huancabamba, Dept. Piura), Ecuador, and apparently of the eastern Andes of Colombia.

### *Cyanolyca pulchra pulchra* (Lawrence).<sup>1</sup> BEAUTIFUL JAY.

- Cyanocitta pulchra* Lawrence, Ann. Lyc. Nat. Hist. N. Y., 11, p. 163, Feb., 1876—"Quito," Ecuador (type now in the American Museum of Natural History, New York); Pelzeln, Verh. Zool. Bot. Gesells. Wien, 26, p. 19, 1878—Ecuador (crit.).
- Cyanolyca pulchra* Hellmayr, Proc. Zool. Soc. Lond., 1911, p. 1124—Tatamá Mountain, western Andes, Colombia (crit.); Chapman, Bull. Amer. Mus. N. H., 55, p. 701, 1926—"Quito," Ecuador.

<sup>1</sup>*Cyanolyca pulchra pulchra* (Lawrence) is nearly related to *C. p. cucullata*, the type of coloration being practically the same in the two birds. It differs, however, by much larger bill and in various details of coloration. The black frontal band, which, in *cucullata*, reaches as far back as the anterior margin of the eye, is much narrower, being only half as wide; the pileum is much paler, bluish silvery white, and—except for the azure blue nuchal collar—very nearly uniform; the upper back is duller, more of a brownish, less velvety black; wings, rump, upper tail coverts, tail, and abdomen are decidedly purplish blue (instead of dull French blue); the breast is also slightly, the throat strongly, tinged with purplish blue, whereas in *cucullata* both throat and breast are dull blackish.

*C. p. pulchra* is exceedingly rare in collections, only four examples being on record, of which we have seen two. An adult male from Colombia (Tatamá Mountain, Chocó) differs from an unsexed Ecuadorian skin ("Quito" make) by much narrower azure blue nuchal band and duller purplish blue throat. It is also larger: wing, 133 (against 125); tail, 132 (against 125); bill, 30 (against 28).

*Range*.—Western slope of the western Andes of Colombia (Tatamá Mountain, near the headwaters of the San Juan River, alt. 7,600 ft., Cauca) and western Ecuador ("Quito" collections).

**\**Cyanolyca pulchra cucullata* (Ridgway). COSTA RICAN AZURE-HOODED JAY.**

*Cyanocorax cucullatus* Ridgway, Proc. U. S. Nat. Mus., 8, p. 23, 1885—Navárrro, Costa Rica (type in U. S. National Museum); Zeledón, Anal. Mus. Nac. Costa Rica, 1, p. 113, 1887—El Zarcéro de Alajuela and Río Súcio, Costa Rica.

*Cyanocitta ornata* (not *Pica ornata* Lesson) Salvin, Ibis, 1870, p. 114—Costa Rica.

*Cyanocorax ornatus* Sharpe, Cat. Bds. Brit. Mus., 3, p. 127, 1877—part, Veragua.

*Cyanolyca cucullata* Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 500, 1887—Río Súcio and Navárrro, Costa Rica, and "Panama"; Bangs, Proc. New Engl. Zool. Cl., 3, p. 58, 1902—Caribbean slope of Volcan de Chiriquí, Panama; Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 323, 1904—eastern Costa Rica (Navárrro, El Zarcéro de Alajuela, Río Súcio), Chiriquí (Volcan de Chiriquí), and Veragua (Chitrá); Carriker, Ann. Carnegie Mus., 6, p. 772, 1910—La Lagunaria de Dota, La Hondura, Cariblanco de Sarapiquí, and Carrillo, Costa Rica (habits); Kennard and Peters, Proc. Bost. Soc. N. H., 38, p. 465, 1928—Boquete Trail, Panama.

*Range*.—Caribbean slope of Costa Rica and western Panama (Boquete Trail, Volcan de Chiriquí; Chitrá, Prov. Coclé, Veraguas).

3: Costa Rica (Santa Cruz de Turrialba, 1; Limón, 1); Panama (unspecified, 1).

**\**Cyanolyca pulchra mitrata* Ridgway.<sup>1</sup> AZURE-HOODED JAY.**

*Pica ornata* (not of Wagler, 1829) Lesson, Rev. Zool., 2, p. 41, 1839—Mexico (type in collection of M. Abeillé, Bordeaux).

*Cyanolyca mitrata* Ridgway, Auk, 16, p. 255, 1899—new name for *Pica ornata* Lesson, preoccupied; idem, Bull. U. S. Nat. Mus., 50, Part 3, p. 322, 1904—southeastern Mexico, Guatemala, and (?) northern Honduras (monog., full bibliog.).

*Cyanocorax ornatus* Selater, Proc. Zool. Soc. Lond., 25, p. 204, 1857—Jalapa, Vera Cruz; Sharpe, Cat. Bds. Brit. Mus., 3, p. 127, 1877—part, Mexico (Jalapa) and Guatemala.

<sup>1</sup> *Cyanolyca pulchra mitrata* Ridgway is clearly conspecific with *C. p. cucullata*, from which it merely differs by having the azure blue crown anteriorly and laterally margined with silvery white. It is also somewhat larger, and the blackish color on the forehead extends farther backward than in the Costa Rican form.

Three adults from Honduras (coll. Wittkugel) are inseparable from Guatemalan skins.

*Material examined*.—Guatemala: Coban, 3.—Honduras: Volcan de Puca, 1; Santa Ana Mountains, 1; La Sapote, 1.

*Cyanocitta ornata* Scater and Salvin, Ibis, 1859, p. 21—Guatemala (Cahabon) and Honduras; Scater, Proc. Zool. Soc. Lond., 27, p. 381, 1859—Teotalcingo, Oaxaca; idem, l.c., 1864, p. 175—"Valley of Mexico"; Sumichrast, Mem. Bost. Soc. N. H., 1, p. 554, 1869—temperate region of Vera Cruz; Boucard, Ann. Soc. Linn. Lyon, (n.s.), 25, p. 47, 1878—Guatemala.

*Cyanolyca ornata* Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 499, 1887—eastern Mexico and Guatemala; Chapman, Bull. Amer. Mus. N. H., 10, p. 30, 1898—Jalapa, Vera Cruz; Lantz, Trans. Kansas Acad. Sci., 16, p. 222, 1899—Coatepec, Vera Cruz.

*Range*.—Southeastern Mexico, in states of Vera Cruz, (?) Mexico, Oaxaca, and Chiapas, eastern Guatemala (Cahabon, Coban), and Honduras.

1: Guatemala (unspecified, 1).

### *Cyanolyca mirabilis* Nelson.<sup>1</sup> OMILTEME JAY.

*Cyanolyca mirabilis* Nelson, Proc. Biol. Soc. Wash., 16, p. 154, 1903—Omilteme, Guerrero, Mexico (type in U. S. National Museum); Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 748, 1904—Omilteme.

*Range*.—Oak forests of the Sierra Madre in the State of Guerrero, southwestern Mexico.

### *Cyanolyca nana* (Du Bus).<sup>2</sup> DWARF JAY.

*Cyanocorax nanus* Du Bus, Bull. Acad. Roy. Sci. Lettr. et Beaux Arts Belg., 14, (2), p. 103, 1847—Mexico (type in Brussels Museum); Scater, Proc. Zool. Soc. Lond., 25, p. 204, 1857—Jalapa, Vera Cruz; idem, l.c., 27, p. 365, 1859—Jalapa; Schlegel, Mus. Pays-Bas, livr. 9, Coraces, p. 49, 1867—Mexico (crit.).

*Cyanocitta nanus* Bonaparte, Cons. Gen. Av., 1, p. 378, 1850 (diag.).

*Cyanocitta nana* Scater, Proc. Zool. Soc. Lond., 27, p. 381, 1859—Llano Verde, Oaxaca; Sumichrast, Mem. Bost. Soc. N. H., 1, p. 554, 1869—alpine region of Vera Cruz.

*Aphelocoma nana* Sharpe, Cat. Bds. Brit. Mus., 3, p. 118, 1877—Mexico; Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 495, 1887—alpine region of Vera Cruz and near city of Mexico.

*Cyanolyca nana* Stone, Proc. Acad. Nat. Sci. Phila., 1891, p. 444—Jalapa; Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 321, 1904—states of Vera Cruz, Mexico, and Oaxaca (monog., full bibliog.).

<sup>1</sup> *Cyanolyca mirabilis* Nelson is obviously allied to *C. argentigula*, but seems to differ by smaller size; dull greenish blue (instead of purplish black) back; pure white throat; dull greenish blue abdomen abruptly defined against the black chest; and by having the white band along side of crown and occiput confluent (or very nearly so) with the white gular patch. Wing, 104–109, (female) 101–102; tail, 109–116, (female) 105–109.

We are not acquainted with this evidently well-marked species, which, together with *C. nana* and *C. pumilo*, may prove to be conspecific with *C. argentigula*. This problem we are unable to decide for lack of material.

<sup>2</sup> This species is unknown to the author.

*Range*.—Mountain forests of southeastern Mexico, in states of Vera Cruz, Mexico, and Oaxaca (Llano Verde, Mount Zempoaltepec, Reyes).

**Cyanolyca pumilo pumilo** (Strickland). STRICKLAND'S JAY.

*Cyanocorax pumilo* Strickland, in Jardine's Contrib. Ornith., 1849, p. 122 (in text)—Guatemala<sup>1</sup> (type in Strickland Collection, now in Cambridge [Engl.] Museum; cf. Salvin, Cat. Strickl. Coll., p. 292, 1882); Selater, Proc. Zool. Soc. Lond., 25, p. 204, 1857—Guatemala (crit.); Sharpe, Cat. Bds. Brit. Mus., 3, p. 127, 1877—Coban, Guatemala.

*Cyanocorax nanus* (?) (not of Du Bus) Strickland, in Jardine's Contrib. Ornith., 1849, p. 122, pl. 33—Guatemala.

*Cyanocitta pumilo* Bonaparte, Consp. Gen. Av., 1, p. 378, 1850—Guatemala (diag.); Selater and Salvin, Ibis, 1859, p. 21—Guatemala; Salvin, Cat. Strickl. Coll., p. 292, 1882—Guatemala (note on type).

*Cyanolyca pumilo* Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 500, 1887—Calderas, Volcan de Fuego, Sierra de las Nubes, and "San Pedro Carcha," Guatemala; Ridgway, Bull. U. S. Nat. Mus., 50, p. 321, 1904—highlands of Guatemala and Chiapas (Tumbalá).

*Range*.—Oak forests of extreme southeastern Mexico, in State of Chiapas (Tumbalá), western Guatemala, and Honduras (Volcan de Puca).<sup>2</sup>

**Cyanolyca pumilo nigrogularis** van Rossem.<sup>3</sup> SALVADOR BLACK-THROATED JAY.

*Cyanolyca pumilo nigrogularis* van Rossem, Auk, 45, p. 363, 1928—Los Esesmiles, Dept. Chalatenango, El Salvador (type in collection of D. R. Dickey, Pasadena).

*Range*.—Upper Tropical zone of the Cordilleran mountains of El Salvador.

**\*Cyanolyca argentigula argentigula** (Lawrence). SILVERY-THROATED JAY.

*Cyanocitta argentigula* Lawrence, Ann. Lyc. Nat. Hist. N. Y., 11, p. 88, Feb., 1875—"Talamanca," Costa Rica (type in U. S. National Museum); Selater and Salvin, Proc. Zool. Soc. Lond., 1876, p. 268—Costa Rica (crit.).

<sup>1</sup> Probably Antigua (see Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 501, 1887).

<sup>2</sup> A single adult male collected by Wittkugel on the Volcan de Puca (Feb. 25, 1889) differs from two Guatemalan skins (sex not recorded) by larger size (wing, 126; tail, 132) and brighter blue general coloration. It apparently approaches the Salvador race in dimensions.

<sup>3</sup> *Cyanolyca pumilo nigrogularis* van Rossem: "Resembling *C. p. pumilo* of Mexico and Guatemala, but lower throat glossy black, uniform with sides of head and malar region, with posterior outline strongly convex and more sharply defined. Wing, 123–128; tail, 126–129." (van Rossem, l. c.). We have not seen this form.

*Cyanocorax argentigula* Sharpe, Cat. Bds. Brit. Mus., 3, p. 128, 1877—Costa Rica (ex Lawrence); Zeledón, Anal. Mus. Nac. Costa Rica, 1, p. 118, 1887—Volcan de Irazú; Ridgway, Proc. U. S. Nat. Mus., 11, p. 541, 1889—Irazú (descr. juv.).

*Cyanolyca argentigula* Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 501, pl. 34, 1887—"Talamanca," Costa Rica; Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 319, 1904—part, eastern Costa Rica ("Talamanca" and Irazú); Carriker, Ann. Carnegie Mus., 6, p. 772, 1910—Volcan de Turrialba, Retes, Irazú, and La Hondura, Costa Rica.

*Range*.—Mountain forests of Costa Rica (at altitudes of from 4,000 to 8,000 feet).

10: Costa Rica (Irazú, 3; Limón, 7).

***Cyanolyca argentigula blandita* Bangs.<sup>1</sup> CHIRIQUÍ SILVERY-THROATED JAY.**

*Cyanolyca blandita* Bangs, Proc. Biol. Soc. Wash., 19, p. 109, 1906—Volcan de Chiriquí, Panama (type now in Museum of Comparative Zoology, Cambridge, Mass.).

*Cyanolyca argentigula blandita* Bangs, Bull. Mus. Comp. Zool., 70, p. 426, 1930—Volcan de Chiriquí (crit.).

*Cyanolyca argentigula* (not *Cyanocitta argentigula* Lawrence) Bangs, Proc. New Engl. Zool. Cl., 3, p. 57, 1902—Volcan de Chiriquí; Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 319, 1904—part, Volcan de Chiriquí.

*Range*.—Mountain forests of western Panama (Volcan de Chiriquí).

**Genus APHELOCOMA Cabanis**

*Aphelocoma* Cabanis, Mus. Hein., 1, p. 221, 1851—type, by subs. desig. (Baird, Rep. Pac. R. R. Surv., 9, p. 584, 1858), *Garrulus californicus* Vigors.

*Garrulina* Gray,<sup>2</sup> Cat. Gen. Subgen. Bds., p. 148, 1855—type, by orig. desig., *Cyanocorax unicolor* Du Bus.

*Sieberocitta* Coues, Key N. Amer. Bds., 5th ed., 1, pp. 497, 499, 1903—type, by monotypy, [A.] *sieberi arizonae* Ridgway.

**\**Aphelocoma coerulescens coerulescens* (Bosc). FLORIDA JAY.**

*Corvus coerulescens* Bosc, Bull. Soc. Philom. à ses Corresp. [=Bull. Sci. Soc. Philom. Paris, 1, (1)], p. 87', 1795—North America (location of type not stated; cf. Hellmayr, *Alauda*, 2, p. 132, 1930).

<sup>1</sup> *Cyanolyca argentigula blandita* Bangs: Differs from the typical form by flax-flower blue instead of grayish silvery white throat and narrower, distinctly blue band across the crown.

Three specimens examined.

<sup>2</sup> *Garrulina* Bonaparte (Ann. Sci. Nat., (4), Zool., 1, p. 113, 1854) is a nomen nudum.



*Garrulus cyaneus* Vieillot, Nouv. Dict. Hist. Nat., nouv. éd., 12, p. 476, 1817—Florida (location of type not stated).

*Garrulus coerulescens* Vieillot, Nouv. Dict. Hist. Nat., nouv. éd., 12, p. 480, 1817—"Kentucky."

*Corvus floridanus* Bonaparte, Ann. Lyc. Nat. Hist. N. Y., 2, p. 58, 1828—based on "*Corvus floridanus*" Bartram, Travels, p. 290, Florida.

*Aphelocoma floridana* Sharpe, Cat. Bds. Brit. Mus., 3, p. 117, 1877—Florida.

*Aphelocoma cyanea* Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 326, 1904—peninsula of Florida (monog., full bibliog.).

*Range*.—Peninsula of Florida.

26: Florida (Wilson, 7; Lake Worth, 6; Jupiter, 2; Alva, 1; Georgiana, 2; Eau Gallie, 2; Island Home, 1; Indian River, 1; Clear Water Bay, 1; Lautana, 1; Cedar Keys, 1; unspecified, 1).

**\**Aphelocoma coerulescens*<sup>1</sup> *immanis* Grinnell.<sup>2</sup> LONG-TAILED JAY.**

*Aphelocoma californica immanis* Grinnell, Auk, 18, p. 188, 1901—Scio, Oregon (type in collection of J. Grinnell, now in Museum of Vertebrate Zoology, Berkeley, California); Oberholser, Condor, 19, p. 94, 1917—Oregon and northern California (crit.); Swarth, Univ. Calif. Pub. Zool., 17, p. 415, 1918—extreme southern Washington, Oregon, and California (monog.); Grinnell, Dixon, and Linsdale, l.c., 35, p. 296, 1930—Lassen Peak region, California; Grinnell and Wythe, Pac. Coast Avifauna, 18, p. 102, 1927—Vacaville, Solano County, California; Jewett and Gabrielson, l.c., 19, p. 28, 1929—Portland, Oregon.

*Aphelocoma californica californica* Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 327, 1904—Washington, Oregon, and California (in part).

*Range*.—Extreme southern Washington, Oregon (valleys between the Cascades and the Coast Ranges), and south in California through the Sacramento and San Joaquin valleys and the Sierra Nevada, east to the Warner Mountains and the eastern base of the Sierra Nevada.

7: Oregon (Eagle Point, Jackson County, 2); California (Anderson, Tehama County, 1; Clipper Gap, Placer County, 3; Piute Mountains, Kern County, 1).

**\**Aphelocoma coerulescens* *oocleptica* Swarth.<sup>3</sup> NICASIO JAY.**

*Aphelocoma californica oocleptica* Swarth, Univ. Calif. Pub. Zool., 17, p. 413, 1918—Nicasio, Marin County, California (type in Museum of Vertebrate

<sup>1</sup> The *Aphelocoma californica* group is clearly conspecific with *A. coerulescens*.

<sup>2</sup> *Aphelocoma coerulescens immanis* Grinnell: Distinguished from *A. c. californica* by larger size and somewhat paler coloration, notably slightly more grayish blue upper parts.

Not having any material to speak of, we have adopted the characters and range of this form from Swarth's excellent treatise of the Pacific Jays.

<sup>3</sup> *Aphelocoma coerulescens oocleptica* Swarth: In color closely similar to *A. c. californica*, but distinctly larger; equaling *A. c. immanis* in size, but darker.

Zoology, Berkeley); Grinnell and Wythe, *Pac. Coast Avifauna*, 18, p. 101, 1927—San Francisco Bay region.

*Aphelocoma californica californica* Ridgway, *Bull. U. S. Nat. Mus.*, 50, Part 3, p. 327, 1904—California (in part).

*Range*.—Coast region of northern California, from Humboldt Bay south to the Golden Gate and the east side of San Francisco Bay.

13: California (Miller, Mendocino, 1; Fairfax, Marin, 1; Nicasio, Marin, 7; Oakland, 2; Haywards, Alameda, 2).

**\**Aphelocoma coerulescens californica* (Vigors). CALIFORNIA JAY.**

*Garrulus californicus* Vigors, *Zool. Voy. "Blossom,"* p. 21, pl. 5, 1839—Monterey, California (type apparently lost).

(?) *Cyanocitta superciliosa* Strickland, *Ann. Mag. Nat. Hist.*, 15, p. 260, 1845—new name for *Corvus ultramarinus* (not of Bonaparte) Audubon, *Orn. Biog.*, 4, p. 456, 1838, and *Syn. N. Amer. Bds.*, p. 154, 1839;<sup>1</sup> idem, l.c., p. 343, 1845 (crit.).

*Aphelocoma californica californica* Ridgway, *Bull. U. S. Nat. Mus.*, 50, Part 3, p. 327, 1904—California (in part); Grinnell and Swarth, *Univ. Calif. Pub. Zool.*, 10, p. 261, 1913—San Jacinto area, California (crit.); Swarth, l.c., 17, p. 410, 1918—part, California (monog.); Grinnell and Wythe, *Pac. Coast Avifauna*, 18, p. 102, 1927—San Francisco Bay region.

*Aphelocoma californica obscura* (not of Anthony) Ridgway, *Bull. U. S. Nat. Mus.*, 50, Part 3, p. 330, 1904—part, southern coast district of California.

*Range*.—Coast region of California, from the southern arm of San Francisco Bay to the Mexican line, east to the eastern base of the Coast Ranges.

20: California (Baden, San Mateo, 2; Palo Alto, Santa Clara, 7; Los Gatos, Santa Clara, 2; Monterey, 5; Santa Barbara, 3; San Sevaine Flats, San Bernardino, 1).

***Aphelocoma coerulescens obscura* Anthony. BELDING'S JAY.**

*Aphelocoma californica obscura* Anthony, *Proc. Calif. Acad. Sci.*, (2), 3, p. 75, 1889—San Pedro Mártir Mountains, Lower California (type now in Carnegie Museum; cf. Todd, *Ann. Carnegie Mus.*, 18, p. 355, 1928); Ridgway, *Bull. U. S. Nat. Mus.*, 50, Part 3, p. 330, 1904—part, northern Lower California; Grinnell, *Univ. Calif. Pub. Zool.*, 32, p. 146, 1928—Lower California (monog.).

<sup>1</sup> In both places Audubon mentions as localities "Columbia River" (near Fort Vancouver, Washington) and "Upper California," thus including at least two forms of the California Jay under his *Corvus ultramarinus*. The birds seen by Nuttall at Fort Vancouver were unquestionably *A. c. immanis*, while "Upper California" may refer just as well to *A. c. oocleptica* as to the typical race. There being no means of telling whence the specimen actually described by Audubon originated, *C. superciliosa* should not come into use and may stand as a doubtful synonym of *G. californicus*, with which it was subsequently identified by Strickland himself.

*Aphelocoma californica californica* Swarth, Univ. Calif. Pub. Zool., 17, p. 410, 1918—part, Lower California.

*Range*.—Northwestern Lower California, chiefly on the Pacific drainage and north of latitude 30°.

**\**Aphelocoma coerulescens hypoleuca* Ridgway. XANTUS'S JAY.**

*Aphelocoma californica hypoleuca* Ridgway, Man. N. Amer. Bds., p. 356, 1887—vicinity of Cape San Lucas, Lower California (type in U. S. National Museum); Bryant, Proc. Calif. Acad. Sci., (2), 2, p. 24, 1889—San Ignacio, Lower California (nest and eggs); Lantz, Trans. Kansas Acad. Sci., 16, p. 222, 1899—La Paz; Brewster, Bull. Mus. Comp. Zool., 41, p. 123, 1902—La Paz, Triunfo, and Sierra de la Laguna (crit., habits, nest and eggs); Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 331, 1904—southern Lower California (monog., full bibliog.); Oberholser, Auk, 35, p. 480, 1918—southern Lower California (crit., range); Townsend, Bull. Amer. Mus. N. H., 48, p. 17, 1923—Santa María Bay on the Pacific around to Concepción on the Gulf coast; McLellan, Proc. Calif. Acad. Sci., (4), 16, p. 305, 1926—Cape San Lucas; Grinnell, Univ. Calif. Pub. Zool., 32, p. 147, 1928—Cape district and north to latitude 29° 15' (crit.).

*Aphelocoma hypoleuca* Swarth, Univ. Calif. Pub. Zool., 17, p. 420, 1918—Lower California (monog.).

*Range*.—Southern Lower California, from the Cape district north to about latitude 29° 15'.

5: Lower California (La Paz, 2; San José del Cabo, 2; Loreto, 1).

**\**Aphelocoma coerulescens insularis* Henshaw.<sup>1</sup> SANTA CRUZ JAY.**

*Aphelocoma insularis* Henshaw, Auk, 3, p. 452, 1886—Santa Cruz Island, California (type in U. S. National Museum); Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 331, 1904—Santa Cruz Island (monog., full bibliog.); Willett, Pac. Coast Avifauna, 7, p. 68, 1912—Santa Cruz Island (nesting habits); Grinnell, l.c., 11, p. 98, 1915—Santa Cruz Island; Howell, l.c., 12, p. 68, 1917—Santa Cruz Island; Swarth, Univ. Calif. Pub. Zool., 17, p. 418, 1918—Santa Cruz Island (monog.).

*Range*.—Santa Cruz Island, Santa Barbara group, off southern California.

4: Santa Cruz Island.

**\**Aphelocoma coerulescens woodhouseii* (Baird). WOODHOUSE'S JAY.**

*Cyanocitta woodhousei* Baird, Rep. Pac. R. R. Surv., 9, p. 585, 1858—"Central line of Rocky Mountains to tablelands of Mexico" (type from Fort Thorne, New Mexico, in U. S. National Museum); idem, Bds. N. Amer., pl. 59, 1860.

*Aphelocoma woodhouseii* Sharpe, Cat. Bds. Brit. Mus., 3, p. 114, 1877—Rocky Mountains.

<sup>1</sup> I cannot see in the Santa Cruz Jay anything but a well-marked insular race.

*Aphelocoma woodhouseii* Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 333, 1904—western United States (monog., full bibliog.).

*Aphelocoma woodhousei* Swarth, Pac. Coast Avifauna, 4, p. 29, 1904—Huachuca Mountains, Arizona (habits); idem, l.c., 10, p. 45, 1914—Arizona; Grinnell, l.c., 11, p. 98, 1915—California, east of the Sierran divide; Swarth, Univ. Calif. Pub. Zool., 17, p. 417, 1918—range in California.

*Aphelocoma californica woodhouseii* Oberholser, Condor, 19, p. 95, 1917; idem, Sci. Pub. Cleveland Mus. N. H., 1, p. 93, 1930—Huachuca Mountains, Arizona.

**Range.**—Western United States, east of the Sierra Nevada, from southeastern Oregon, southern Idaho, and southern Wyoming south to southeastern California (Inyo and Mohave regions and, probably as a transient, at the eastern base of the Sierra Nevada), Arizona, New Mexico, and southwestern Texas.

7: Colorado (Fort Lyon, 2); Utah (Ogden, 1); Arizona (Fort Whipple, 1; Phoenix, 1; Tempe, 1; Huachuca Mountains, 1).

**\**Aphelocoma coerulescens texana* Ridgway. TEXAS JAY.**

*Aphelocoma texana* Ridgway, Auk, 19, p. 70, 1902—near head of Nueces River, Edwards County, Texas (type in U. S. National Museum); idem, Bull. U. S. Nat. Mus., 50, Part 3, p. 337, 1904—southwestern Texas (monog.).

*Aphelocoma californica texana* Oberholser, Condor, 19, p. 95, 1917 (crit.).

**Range.**—Central and central-western Texas, from Kerr and Edwards counties west to Davis Mountains.

6: Texas (Kerrville, Kerr County, 1; Paisano Pass, Brewster County, 1; Fort Davis, 1; Davis Mountains, 3).

**\**Aphelocoma coerulescens grisea* Nelson.<sup>1</sup> BLUE-GRAY JAY.**

*Aphelocoma grisea* Nelson, Proc. Biol. Soc. Wash., 13, p. 27, 1899—near Guachochi, Sierra Madre of southern Chihuahua, Mexico (type in U. S. National Museum); Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 337, 1904—same locality; Miller, Bull. Amer. Mus. N. H., 22, p. 169, 1906—Rosario, Santuario, Villa Bocas, Las Bocas, and La Boquilla, Durango (crit.).

*Aphelocoma californica grisea* Oberholser, Condor, 19, p. 95, 1917 (crit.).

**Range.**—Northern Mexico, in states of Chihuahua (near Guachochi; Bastillos) and Durango (Cerro Prieto, Rosario, Santuario, Las Bocas, etc.).<sup>2</sup>

5: Chihuahua (Bastillos, 5).

<sup>1</sup> *Aphelocoma coerulescens grisea* Nelson: Exceedingly close to *A. c. texana*, but paler throughout, particularly the head, which is grayish cerulean instead of azure blue; bill on average more slender.

<sup>2</sup> An additional race, *A. californica remota*, has recently been described by Griscom (Bull. Mus. Comp. Zool., 75, p. 392, 1934) from Chilpancingo, Guerrero.

**Aphelocoma coerulescens cyanotis** Ridgway. BLUE-CHEEKED JAY.

*Aphelocoma cyanotis* Ridgway, Man. N. Amer. Bds., p. 357, 1887—"Mexico" (type in U. S. National Museum); Jouy, Proc. U. S. Nat. Mus., 16, p. 781, 1893—twenty-five miles west of Chacras, San Luis Potosi, alt. 7,000–8,000 ft., Mexico; Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 335, 1914—Mexican plateau (excluding Texas localities); Oberholser, Condor, 19, p. 94, 1917 (crit.).

*Range*.—Mexican plateau, in states of Mexico, Hidalgo, San Luis Potosi, and Coahuila.<sup>1</sup>

**\*Aphelocoma coerulescens sumichrasti** (Baird and Ridgway). SUMICHRAST'S JAY.

*Cyanocitta floridana* var. *sumichrasti* Baird and Ridgway, Bull. Essex Inst., 5, p. 199, 1873—Orizaba, Vera Cruz, Mexico (type in U. S. National Museum).

*Aphelocoma sumichrasti* Sharpe, Cat. Bds. Brit. Mus., 3, p. 114, 1877—Atlixco and Oaxaca, Mexico; Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 336, 1904—southeastern Mexico (monog., full bibliog.); Oberholser, Condor, 19, p. 94, 1917 (crit.).

*Aphelocoma californica* (not *Garrulus californicus* Vigors) Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 492, 1887—part, Mexico.

*Range*.—Southeastern portion of Mexican plateau, in states of Vera Cruz, Puebla, Tlaxcala, and Oaxaca.

1: Mexico, Puebla (Pinal, 1).

**\*Aphelocoma sordida arizonae** (Baird and Ridgway). ARIZONA JAY.

*Cyanocitta ultramarina* var. *arizonae* (Ridgway MS.) Baird and Ridgway, Bull. Essex Inst., 5, p. 199, 1873—Fort Buchanan, Arizona (type in U. S. National Museum).

[*Aphelocoma sordida*] subsp. *a* *Aphelocoma arizonae* Sharpe, Cat. Bds. Brit. Mus., 3, p. 117, 1877—Camp Crittenden, Arizona, and Fort Bayard, New Mexico.

*Aphelocoma sieberii arizonae* Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 340, 1904—Arizona, New Mexico, Sonora, and Chihuahua (monog., full bibliog.); Swarth, Pac. Coast Avifauna, 4, p. 30, 1904—Huachuca Mountains, Arizona (habits); idem, l.c., 10, p. 45, 1914—southeastern Arizona; Oberholser, Sci. Pub. Cleveland Mus. N. H., 1, p. 93, 1930—Huachuca Mountains, Arizona; van Rossem, Trans. San Diego Soc. N. H., 6, p. 269, 1931—Nogales and Saric, Sonora.

*Range*.—Southeastern Arizona (Santa Rita, Chiricahua, Santa Catalina, Huachuca, Dragoon, Whetstone, and Rincon Mountains, Mount Graham, etc.), southwestern New Mexico (Grant County), and northern parts of Sonora and Chihuahua, Mexico.

<sup>1</sup> As shown by Oberholser (l.c.), Texas records of *A. cyanotis* are due to erroneous identification, *A. c. texana* being the only jay of this group occurring in Texas.

42: Arizona (Huachuca Mountains, 19; Chiricahua Mountains, 3; Santa Rita Mountains, 1; Santa Catalina Mountains, 4; Coché Canyon, southeast of Tucson, 1); New Mexico (Fort Bayard, 1); Chihuahua (thirty miles west of Miñaca, 7; Bastillos, 5; unspecified, 1).

**\*Aphelocoma sordida couchii** (Baird). COUCH'S JAY.

*Cyanocitta couchii* Baird, Rep. Pac. R. R. Surv., 9, p. 588 (in text), 1858—"Monterey"—Guajuco, eighteen miles southeast of Monterey, Nuevo Leon, Mexico (type in U. S. National Museum).

[*Aphelocoma ultramarina*] subsp.  $\alpha$  *Aphelocoma couchi* Sharpe, Cat. Bds. Brit. Mus., 3, p. 116, 1877—south side of the Rio Grande Valley and southward.

*Aphelocoma sieberii couchi* Oberholser, Auk, 19, p. 300, 1902—Chisos Mountains, southwestern Texas; Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 342, 1904—southern Nuevo Leon to southwestern Texas (Chisos Mountains); Phillips, Auk, 28, p. 82, 1911—Carricitos, Galindo, Santa Leonor, and Realito, Tamaulipas.

*Range*.—Northeastern Mexico, in states of Coahuila, Nuevo Leon, and northern Tamaulipas, and southwestern Texas (Chisos Mountains).

1: Tamaulipas (Ciudad Victoria, 1).

**\*Aphelocoma sordida wollweberi** Kaup. ZACATECAS JAY.

*Aphelocoma wollweberi* Kaup,<sup>1</sup> Journ. Orn., 2, Erinnerungsschrift Jahresvers. Gotha, p. LV (footnote), 1855—Zacatecas, Mexico (type in Darmstadt Museum).

*Aphelocoma gracilis* G. S. Miller, Auk, 13, p. 34, 1896—Sierra Bolaños, Jalisco, Mexico (type in collection of G. S. Miller, now in British Museum).

*Aphelocoma sieberii wollweberi* Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 341, 1904—northwestern Mexico (monog.); Miller, Bull. Amer. Mus. N. H., 22, p. 170, 1906—Las Bocas, La Boquilla, Cienaga de las Vacas, and Arroyo del Buey, northwestern Durango.

*Range*.—Northwestern and central portions of Mexican plateau, from southwestern Chihuahua, eastern Sinaloa, Durango, and western San Luis Potosi south to northern Jalisco, Zacatecas, and Tepic (Santa Teresa).

1: Durango (Coyotes, 1).

**Aphelocoma sordida sordida** (Swainson).<sup>2</sup> HIDALGO JAY.

<sup>1</sup> There can be little doubt that *wollweberi* is an earlier name for *A. gracilis*, as pointed out by Ridgway. Kaup's description not only fits the present form exceedingly well, but the two type localities (Zacatecas and Sierra Bolaños, Jalisco) are in the same section of the central Mexican tableland. Judging from the five specimens examined, I consider it, however, very doubtfully separable from typical *sordida*.

<sup>2</sup> The form described by Nelson as *A. s. potosina* is obviously typical *sordida*. Swainson's type was obtained by Bullock at Real del Monte, near Pachuca, in southern Hidalgo. Birds from Tulancingo in that state, thus nearly topotypical, cannot be distinguished from others taken at Villar (northeast of city of San Luis Potosi), which doubtless represent *potosina* of Nelson.

*Garrulus sordidus* Swainson,<sup>1</sup> Philos. Mag., (n.s.), 1, p. 437, June, 1827—Real del Monte, Hidalgo (type in Bullock Collection); idem, Zool. Ill., (2), 2, pl. 86, 1832—tableland of Mexico.

*Aphelocoma sieberi potosina* Nelson, Auk, 16, p. 27, 1899—mountains near Jesus Maria, San Luis Potosi, Mexico (type in U. S. National Museum).

*Aphelocoma sieberii potosina* Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 340, 1904—northeastern portion of Mexican plateau (monog.).

*Range*.—Northeastern portion of Mexican plateau, from southern Coahuila (Carneros) through northeastern Zacatecas, San Luis Potosi, and (?) Guanajuato south to Hidalgo (Real del Monte; El Chico; Tulancingo) and southern Tamaulipas (Miquihuana).

### *Aphelocoma sordida colimae* Nelson.<sup>2</sup> COLIMA JAY.

*Aphelocoma sieberi colimae* Nelson, Auk, 16, p. 27, 1899—Jacala, Jalisco, Mexico (type in U. S. National Museum).

*Aphelocoma sieberii colimae* Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 339, 1904—Jalisco and Colima (monog.).

*Range*.—Southwestern portion of Mexican plateau, from the Sierra Nevada de Colima, Colima, north to the Santiago River, Jalisco.

### *Aphelocoma sordida sieberii* (Wagler). SIEBER'S JAY.

(?) *Corvus ultramarinus* Bonaparte,<sup>3</sup> Journ. Acad. Nat. Sci. Phila., 4, Part 2, p. 387, May, 1825—Mexico (type probably lost).

*Pica sieberii* Wagler, Syst. Av., 1, fol. 21, Genus *Pica*, sp. 23, 1827—Mexico (coll. Leadbeater and coll. Wagler; cotype in Munich Museum [ex coll. Wagler] examined).<sup>4</sup>

<sup>1</sup> Swainson's name published in June appears to have priority over *Pica sieberii*, commonly accepted as specific title for this jay. The actual date of publication of Wagler's "Systema Avium" is not known, but we are informed by Dr. Richmond (in litt.) that it is listed in the Foreign Quarterly Review among the new books for the quarter covering July to October, 1827.

<sup>2</sup> We are not acquainted with this race. The range has been compiled from Nelson's and Ridgway's accounts.

<sup>3</sup> *Corvus ultramarinus* Bonaparte, while certainly referring to one of the races of *A. sordida*, cannot be satisfactorily identified without reexamination of the type. According to Bonaparte's subsequent definition (Consp. Gen. Av., 1, p. 378, 1850), it is similar to *A. "sieberi"* (whatever the author understands by that name), but smaller with an "even" (instead of rounded) tail. The whereabouts of the type is unknown. I could not find it in the collections of the Paris Museum.

<sup>4</sup> *Pica sieberii*, based on specimens in the collections of Leadbeater and the author, has always been considered identical with *G. sordidus* of Swainson. While the latter is almost certainly the same as *A. s. potosina* Nelson (see footnote 2, p. 56), Wagler's name appears to refer to the Vera Cruz form. The author's original specimen, now in the Munich Museum, is much larger (wing, 183; tail, 172), darker blue above, and distinctly grayish on abdomen and lower tail coverts. As far as I can see, it is inseparable from two birds from the highlands of Vera Cruz.

*Corvus azureus* (not of Temminck, 1822) Lichtenstein, Preis-Verz. Mexik. Säug., Vögel, etc., p. 1, 1830—Mexico (type in Berlin Museum); Journ. Orn., 11, p. 56, 1863 (reprint).

*Aphelocoma sordida* (not *Garrulus sordidus* Swainson) Sharpe, Cat. Bds. Brit. Mus., 3, p. 116, 1877—Mexico.

*Aphelocoma ultramarina* (not *Corvus ultramarinus* Bonaparte ?) Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 493, 1887—part, city of Mexico, Vera Cruz, and Jalapa, Mexico.

*Aphelocoma sieberii* Ferrari-Perez, Proc. U. S. Nat. Mus., 9, p. 153, 1886—Cerro de San Pedro, Hacienda de San Pedro, and San Salvador el Verde, Puebla; Stone, Proc. Acad. Nat. Sci. Phila., 1890, p. 214—Mount Orizaba; Cox, Auk, 12, p. 358, 1895—San Andres, Mount Orizaba; Chapman, Bull. Amer. Mus. N. H., 10, p. 42, 1898—Las Vigas, Vera Cruz.

*Aphelocoma sieberii sieberii* Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 338, 1904—southern Mexico (monog., full bibliog.).

*Range*.—Southern portion of Mexican plateau, in states of Vera Cruz, Puebla, Mexico, Morelos, and Michoacan.

#### ***Aphelocoma unicolor guerrenderensis* Nelson.<sup>1</sup> GUERRERO JAY.**

*Aphelocoma guerrenderensis* Nelson, Proc. Biol. Soc. Wash., 16, p. 154, 1903—Omiteme, Guerrero, Mexico (type in U. S. National Museum); Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 749, 1904—Omiteme, Guerrero; Oberholser, Proc. Biol. Soc. Wash., 32, p. 135, 1919 (crit.).

*Range*.—Southwestern Mexico, in State of Guerrero (Omiteme).

#### ***Aphelocoma unicolor unicolor* (Du Bus). UNICOLORED JAY.**

*Cyanocorax unicolor* Du Bus, Bull. Acad. Roy. Sci. Lettr. et Beaux-Arts Belg., 14, (2), p. 103, 1847—"le Mexique" (type in Brussels Museum); idem, Esq. Orn., livr. 4, pl. 17, 1848—part, "Tabasco" and Oaxaca (San Pedro and Tepitongo);<sup>2</sup> Sclater, Proc. Zool. Soc. Lond., 25, p. 204, 1857—Jalapa, Vera Cruz; idem, l.c., 27, p. 365, 1859—Jalapa.

*Cyanocorax concolor* Cassin, Proc. Acad. Nat. Sci. Phila., 4, p. 26, 1848—"South America" (type in Academy of Natural Sciences of Philadelphia; cf. Stone, l.c., 1899, p. 34); idem, l.c., p. 90, 1848—Puebla, about Pinal and the mountains skirting the valley of Mexico on the east.

*Cyanocitta unicolor* Sclater, Cat. Coll. Amer. Bds., p. 143, 1862—Jalapa; idem, Proc. Zool. Soc. Lond., 1864, p. 175—"vicinity of Mexico City."

*Aphelocoma unicolor* Sharpe, Cat. Bds. Brit. Mus., 3, p. 118, 1877—part, Jalapa; Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 494, 1887—

<sup>1</sup> *Aphelocoma unicolor guerrenderensis* Nelson: Similar to *A. u. unicolor*, but tail longer and coloration much deeper, glossy purplish grayish blue. Wing (two males), 164–166; tail, 164–170.

We fully agree with van Rossem's contention (Auk, 45, p. 362, 1928) that *guerrenderensis* is just a race of *A. unicolor*.

Two specimens from the type locality examined.

<sup>2</sup> The type in the Brussels Museum should be carefully reexamined and its origin determined. The locality "Tabasco" can hardly be correct.



part, valley of Mexico, Puebla, Jalapa; Lantz, Trans. Kansas Acad. Sci., 16, p. 222, 1899—Coatepec, Vera Cruz.

*Aphelocoma unicolor unicolor* Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 344, 1904—states of Vera Cruz, Puebla, and Mexico (monog.).

*Range*.—Southeastern Mexico, in states of Vera Cruz, Puebla, Mexico, and Oaxaca (San Pedro, Tepitongo).

**\**Aphelocoma unicolor coelestis* Ridgway. CERULEAN JAY.**

*Aphelocoma unicolor coelestis* Ridgway, Proc. Biol. Soc. Wash., 16, p. 108, 1903—San Cristobal, Chiapas (type in U. S. National Museum); idem, Bull. U. S. Nat. Mus., 50, Part 3, p. 345, 1904—highlands of Guatemala and Chiapas (monog.).

*Cyanocorax unicolor* (not of Du Bus, 1847) Du Bus, Esq. Orn., livr. 4, text to pl. 17, 1848—part, "Vera Paz," Guatemala.

*Cyanocitta unicolor* Salvin, Ibis, 1866, p. 194—Chilasco, Totonicapam, and Quiché, Vera Paz, Guatemala.

*Aphelocoma unicolor* Sharpe, Cat. Bds. Brit. Mus., 3, p. 118, 1877—part, Guatemala; Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 494, 1887—part, Guatemala.

*Range*.—Highlands of Guatemala and southeastern Mexico, in State of Chiapas (San Cristobal).

1: Guatemala (Tecpan, 1).

***Aphelocoma unicolor griscomi* van Rossem.<sup>1</sup> GRISCOM'S JAY.**

*Aphelocoma unicolor griscomi* van Rossem, Auk, 45, p. 362, 1928—Los Eses-miles, Dept. Chalatenango, El Salvador (type in collection of Donald R. Dickey, Pasadena).

*Range*.—Cloud forests of the Cordillera of El Salvador and (?) Honduras.

**Genus CYANOCITTA Strickland**

*Cyanocitta* Strickland, Ann. Mag. Nat. Hist., 15, p. 261, 1845—type, by orig. desig., *Corvus cristatus* Linnaeus.

*Cyanogarrulus* Bonaparte, Cons. Gen. Av., 1, p. 376, 1850—type, by subs. desig. (Sharpe, Cat. Bds. Brit. Mus., 3, p. 106, 1877), *Corvus cristatus* Linnaeus.

*Lophocorax* Kaup, Journ. Orn., 2, "1854," Erinnerungsschrift Jahresvers. Gotha, p. LV, 1855—type, by subs. desig. (Gray, Cat. Gen. Subgen. Bds., p. 148, 1855), "*Corvus diamedata*" = *Corvus diadematus* Bonaparte.

<sup>1</sup> *Aphelocoma unicolor griscomi* van Rossem is, according to the description, exactly intermediate in color between *guerrerensis* and *unicolor*, being much darker and more purplish than *coelestis*. Wing (males), 162–171; tail, 158–166.

A specimen from Volcan de Puca, Honduras, obtained by Wittkugel on March 4, 1889, which we examined years ago, presented similar differences when compared with birds from Vera Cruz and Chiapas, and probably is representative of this race, of which no topotypical material is accessible.

**\*Cyanocitta cristata cristata (Linnaeus). BLUE JAY.**

*Corvus cristatus* Linnaeus, Syst. Nat., 10th ed., 1, p. 106, 1758 (based on "The Blew Jay" Catesby, Nat. Hist. Carolina, 1, p. 15, pl. 15, 1753; southeastern South Carolina designated as type locality (auct. Oberholser, Auk, 38, pp. 83-85, 1921).

*Cyanocitta cristata florincola* Coues, Key N. Amer. Bds., 2nd ed., p. 421, 1884—"Florida" (selected type from Hibernia, Clay County, Florida, in Mus. Comp. Zool., Cambridge, Mass.; cf. Bangs, Bull. Mus. Comp. Zool., 70, p. 425, 1930); Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 350, 1904—peninsula of Florida (part).

*Cyanocitta cristata cristata* Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 347, 1904—part (monog., full bibliog.); Oberholser, Auk, 38, p. 83, 1921 (monog., crit.).

**Range.**—Resident in the southeastern United States from central North Carolina and southern Illinois to Florida (except extreme southern tip) and southeastern Texas.<sup>1</sup>

45: Florida (West Jupiter, 6; Lake Worth, 4; Palm Beach, 1; New River, 2; St. Lucie Swamp, 2; East Pass, 1; Town Point, 7; Fort Myers, 3; Enterprise, 1; Wilson, 1; Starke, 1; Mary Esther, 3; Kissimmee River, 1; Nassau County, 2; Myers, 1); Arkansas (Winslow, 1); Texas (Fort Worth, 2); Louisiana (Chef Menteur, 2); Mississippi (Vicksburg, 3; Holly Springs, 1).

**\*Cyanocitta cristata bromia Oberholser.<sup>2</sup> NORTHERN BLUE JAY.**

*Cyanocitta cristata bromia* Oberholser, Auk, 38, p. 86, 1921—Wooster, Wayne County, Ohio (type in H. C. Oberholser Collection).

*Cyanocitta cristata cristata* Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 347, 1904—part (monog., full bibliog.).

**Range.**—Northeastern United States and southern Canada; breeds from Newfoundland, Quebec, northern Ontario, and northern Alberta south to central and northwestern Texas, central Missouri, central Illinois, central Indiana, central-eastern Tennessee, northwestern North Carolina, and Virginia; casual at Fort Churchill, Manitoba, and Fruitland, New Mexico. More or less migratory in the northern part of the range, and occurring in winter in southern Illinois.

46: Massachusetts (Taunton, 1; Dedham, 1; West Roxbury, 1); Connecticut (East Hartford, 2); New York (Peterboro, 1; Shelter

<sup>1</sup> The fourth edition of the A. O. U. Check List admits three races of the Blue Jay as follows: (a) *C. cristata cristata*, eastern North America south to Tennessee, Virginia, and central Texas; (b) *C. cristata florincola*, South Atlantic and Gulf states from the coast of North Carolina to northern Florida, and west to Louisiana; (c) *C. cristata semplei*, central and southern Florida.

<sup>2</sup> *Cyanocitta cristata bromia* Oberholser: Similar to *C. c. cristata*, but larger; upper parts more bluish, less purplish; white tips to greater coverts, tertials, secondaries, and rectrices much larger.

Island, 1); New Jersey (Englewood, 1); Illinois (Chicago, 3; Grand Chain, 3; Joliet, 3; Fort Sheridan, 2; Fox Lake, 1; Brainard, 1; Highland Park, 1; Lewistown, 1; Lyons, 1; Worth, 1); Michigan (Kalamazoo, 1); Iowa (Knoxville, 1); Wisconsin (Beaver Dam, 19).

**\**Cyanocitta cristata semplei* Todd.<sup>1</sup> SEMPLE'S BLUE JAY.**

*Cyanocitta cristata semplei* Todd, Auk, 45, p. 364, 1928—Coconut Grove, Florida (type in Carnegie Museum).

*Cyanocitta cristata cristata* (not *Corvus cristatus* Linnaeus) Oberholser, Auk, 38, p. 83, 1921—Florida (part).

*Cyanocitta cristata florincola* (not of Coues) Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 350, 1904—Florida (part).

*Range*.—Extreme southern Florida (south of the Everglades).

1: Florida (Cutler, 1).

**\**Cyanocitta stelleri stelleri* (Gmelin). STELLER'S JAY.**

*Corvus stelleri* Gmelin, Syst. Nat., 1, (1), p. 370, 1788—Nootka Sound, Vancouver Island (based on "Steller's Crow" Latham, Gen. Syn. Bds., 1, p. 387, and Pennant, Arct. Zool., 2, (1), p. 249).

*Cyanocitta stelleri litoralis* Maynard, Ornithologist and Oologist, 14, No. 4, p. 59, 1889—Vancouver Island, British Columbia (type in coll. of F. B. Webster).

*Cyanocitta stelleri borealis* Chapman, Bull. Amer. Mus. N. H., 16, p. 240, 1902—Homer, Cook Inlet, Alaska (type in the American Museum of Natural History, New York).

*Cyanocitta stelleri stelleri* Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 351, 1904 (monog., full bibliog.); Brooks and Swarth, Pac. Coast Avifauna, 17, p. 77, 1925—British Columbia.

*Range*.—Pacific coast from the peninsula of Alaska south into Washington (including Vancouver and other coastal islands except the Queen Charlotte Islands).

7: Alaska (Hunter's Bay, 3; Sitka, 1; Juneau, 1; Dall Island, 1; Prince of Wales Island, 1).

**\**Cyanocitta stelleri carlottae* Osgood.<sup>2</sup> QUEEN CHARLOTTE JAY.**

*Cyanocitta stelleri carlottae* Osgood, North Amer. Fauna, 21, p. 46, 1901—Cumshewa Inlet, Moresby Island, Queen Charlotte Group, British Columbia (type in U. S. National Museum); Ridgway, Bull. U. S. Nat. Mus.,

<sup>1</sup> *Cyanocitta cristata semplei* Todd: "Similar to *C. cristata cristata*, of the South Atlantic and Gulf states, but general coloration paler, the under parts white, with less grayish suffusion, the lower throat with less bluish wash, and the upper parts paler and duller blue, with less purplish tone." (Todd, l.c.).

We have not enough material to discuss this recently separated race.

<sup>2</sup> *Cyanocitta stelleri carlottae* Osgood: Similar to *C. s. stelleri*, but larger; the blue of a more violet hue, and the back, hindneck, and foreneck more sooty black.

50, Part 3, p. 354, 1904 (monog., full bibliog.); Brooks and Swarth, Pac. Coast Avifauna, 17, p. 79, 1925—Queen Charlotte Islands.

*Range*.—Queen Charlotte Islands.

2: Queen Charlotte Islands, 2.

**\**Cyanocitta stelleri carbonacea* Grinnell.<sup>1</sup> COAST JAY.**

*Cyanocitta stelleri carbonacea* Grinnell, Condor, 2, p. 127, 1900—Stevens' Creek Cañon, Santa Clara County, California (type in collection of Joseph Grinnell, now in Museum of Vertebrate Zoology, Berkeley, Calif.); Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 354, 1904 (monog., full bibliog.); Grinnell, Pac. Coast Avifauna, 11, p. 97, 1915—California; Grinnell and Wythe, l.c., 18, p. 101, 1927—San Francisco Bay region; Jewett and Gabrielson, l.c., 19, p. 28, 1929—Portland, Oregon, region.

*Range*.—Humid Pacific coast strip from northern Oregon to the Santa Lucia Mountains, California, east to the Gabilan and the Mount Diablo ranges and mountains on the west side of Napa Valley.<sup>2</sup>

34: Oregon (Logan, 4; Elkton, 2; Netarts, 2; Tillamook, 1); California (Monterey, 6; Santa Cruz, 1; Mendocino County, 1; Nicasio, 9; Fairfax, 3; San Geronimo, 5).

**\**Cyanocitta stelleri frontalis* (Ridgway). BLUE-FRONTED JAY.**

*Cyanura stelleri* var. *frontalis* Ridgway, Amer. Journ. Sci., (3), 5, pp. 41, 43, 1873—"the Columbia along the Sierra Nevada to southern California" (type from Carson City, Nevada, in U. S. National Museum).

*Cyanocitta stelleri frontalis* Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 355, 1904 (monog., full bibliog.); Grinnell, Pac. Coast Avifauna, 11, p. 97, 1915—California; Grinnell and Wythe, l.c., 18, p. 100, 1927—San Francisco Bay region; Grinnell, Univ. Calif. Pub. Zool., 32, p. 146, 1928—Lower California; Grinnell, Dixon, and Linsdale, l.c., 35, p. 293, 1930—Lassen Peak region, California; Stevenson, Condor, 36, p. 75, 1934 (crit., range).

*Cyanocitta stelleri syncolla* Oberholser, Sci. Pub. Cleveland Mus., 4, p. 6, 1932—Warner Mountains, Oregon (type in Cleveland Museum of Natural History).

*Range*.—Canadian and Transition zones of both slopes of the Sierra Nevada from Mount Shasta to the Cuyamaca Mountains, San Diego County, California, and also the inner Coast Ranges of northern California; casual in northwestern Lower California.

<sup>1</sup> *Cyanocitta stelleri carbonacea* Grinnell: Similar to *C. s. stelleri*, but paler in general coloration; color of head approaching brown (not sooty), with conspicuous blue streaks on anterior portion.

<sup>2</sup> According to Stevenson (Condor, 36, p. 75, 1934), confirming Mailliard's conclusions (Condor, 24, pp. 127–133, 1922), *C. s. carbonacea* is not found in California, birds from the northwestern parts of that state being *frontalis*, while those from southwestern Washington and northern Oregon are *C. s. paralia* Oberholser (Sci. Pub. Cleveland Mus., 4, p. 7, 1932).

21: California (Palo Alto, 2; St. Helena, 2; Calaveras Valley, 1; San José, 1; Santa Cruz, 1; Lassen County, 1; Butte County, 1; Placer County, 1; Suzanville, 1; Big Bear Valley, 3; San Gabriel Canyon, 3; Mount Islip, 1; Bluff Lake, 1; Los Angeles County, 2).

**\*Cyanocitta stelleri annectens (Baird). BLACK-HEADED JAY.**

*Cyanura stelleri* var. *annectens* Baird, in Baird, Brewer, and Ridgway, *Hist. North Amer. Bds.*, 2, p. 281 (in text), 1874—"headwaters of the Columbia" (type from Hill Gate, east of Missoula, Montana, in U. S. National Museum).

*Cyanocitta stelleri annectens* Ridgway, *Bull. U. S. Nat. Mus.*, 50, Part 3, p. 357, 1904 (monog., full bibliog.); Saunders, *Pac. Coast Avifauna*, 14, p. 94, 1921—Montana; Brooks and Swarth, *l.c.*, 17, p. 78, 1925—British Columbia.

*Range*.—Boreal and Transition zones of the Rocky Mountains, from British Columbia south to eastern Oregon, Idaho, and Wyoming; casual in western Nebraska and Utah.

2: British Columbia (Okanagan Landing, 1; Shuswop Falls, 1).

**Cyanocitta stelleri percontatrix van Rossem.<sup>1</sup> NEVADA JAY.**

*Cyanocitta stelleri percontatrix* van Rossem, *Trans. San Diego Soc. N. H.*, 6, p. 328, 1931—Hidden Forest (8,500 ft.), Sheep Mountains, Clark County, Nevada (type in collection of Donald R. Dickey, Pasadena).

*Range*.—Transition zone of Sheep and Charleston Mountains, Clark County, Nevada.

**\*Cyanocitta stelleri diademata (Bonaparte). LONG-CRESTED JAY.**

*Cyanogarrulus diadematus* Bonaparte, *Consp. Gen. Av.*, 1, p. 377, 1850—Zacatecas, Mexico (type in Darmstadt Museum).

*Cyanocitta macrolopha* Baird, *Proc. Acad. Nat. Sci. Phila.*, 7, p. 118, 1854—100 miles west of Albuquerque, New Mexico (type in U. S. National Museum).

*Cyanocitta stelleri diademata* Ridgway, *Bull. U. S. Nat. Mus.*, 50, Part 3, p. 358, 1904 (monog., full bibliog.); Miller, *Bull. Amer. Mus. N. H.*, 22, p. 169, 1906—northwestern Durango; Swarth, *Pac. Coast Avifauna*, 10, p. 45, 1914—Arizona; Bailey, *Bds. New Mex.*, p. 474, 1928; Oberholser, *Sci. Pub. Cleveland Mus. N. H.*, 1, pp. 92, 115, 1930—Huachuca Moun-

<sup>1</sup> *Cyanocitta stelleri percontatrix* van Rossem: "Similar in head markings and in general body coloration to Arizona, New Mexico, and Colorado specimens of *C. s. diademata* (Bonaparte), that is, with the supraorbital region extensively white, the lower eyelid narrowly white, and the frontal streaks white or bluish white; but differing from that form in having the back and sides of neck "deep neutral gray" instead of "mouse gray." Differs from *C. s. annectens* Baird of the northern Great Basin in decidedly paler coloration throughout, more extensively white eyelids and longer crest." (van Rossem, *l.c.*).

We are not acquainted with this recently described race.

tains, Arizona, and Cloudcroft, New Mexico (crit.); van Rossem, Trans. San Diego Soc. N. H., 6, p. 269, 1931—south of Nogales, Sonora.

*Range*.—Southern Rocky Mountains of the United States, from northeastern Utah (Wasatch Mountains) and southern Wyoming south to Chihuahua, Sonora, Zacatecas, Jalisco, and Nayarit.

50: Colorado (Mount Vernon Canyon, 1; Berthoud's Pass, 1; Boulder, 2; Golden, 1; Rocky Ford, 2; Empire, 2; Stamford, 1; Fort Lyon, 2; Salt Lake County, 1); New Mexico (Las Vegas, 1; Fort Bayard, 1); Arizona (Huachuca Mountains, 20); Chihuahua (Santa Isabel, 1; Babicora, 2; thirty miles west of Miñaca, 12).

**Cyanocitta stelleri coronata (Swainson).<sup>1</sup> BLUE-CRESTED JAY.**

*Garrulus coronatus* Swainson, Philos. Mag., (n.s.), 1, p. 437, June, 1827—tableland of Mexico (type lost; cf. Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 491, 1887).<sup>2</sup>

*Cyanocitta galeata* Cabanis, Mus. Hein., 1, p. 222, 1851—"Santa Fé de Bogotá (?)" errore (type in Heine Collection, Halberstadt).

*Cyanocitta stelleri coronata* Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 362, 1904—part, southern Mexico (monog., full bibliog.).

*Range*.—Highlands of southern Mexico, from (?) Vera Cruz and (?) Hidalgo through Oaxaca and Guerrero to Colima (Sierra Madre).

**\*Cyanocitta stelleri azteca Ridgway. AZTEC JAY.**

*Cyanocitta stelleri azteca* Ridgway, Auk, 16, p. 256, 1899—mountains near Vera Cruz, Mexico (type in U. S. National Museum); idem, Bull. U. S. Nat. Mus., 50, Part 3, p. 361, 1904—south-central Mexico (monog., full bibliog.).

*Range*.—South-central Mexico, in states of Vera Cruz, Puebla, Morelos, Mexico, and Michoacan.<sup>3</sup>

1: Puebla (Cofre de Perote, 1).

<sup>1</sup> The status of this form is far from clear. According to Ridgway, its range would overlap to a certain extent with that of *C. s. azteca*, both being indicated to comprise the highlands of Vera Cruz (Orizaba, Mirador), which can hardly be correct. The case is further complicated by the vague type locality "tableland of Mexico" and the absence of the type. If *coronata* is anything more than an individual variant, its range is probably restricted to southwestern Mexico.

<sup>2</sup> From a note in the text to plate 64 in Jardine and Selby's *Illust. Ornith.*, Part 4, 1828, it results that the type (or at least one of Bullock's original specimens) was bought by Jardine at the sale of the Bullock Collection. As the Jardine Collection was dispersed on the death of its owner, there is still the possibility that this example may turn up in some private collection.

<sup>3</sup> All the specimens (five) seen from the highlands of Vera Cruz and Puebla are *azteca*, as defined by Ridgway. Birds from Michoacan (Patzcuaro) are said to be intermediate to *coronata*.

**\*Cyanocitta stelleri ridgwayi** Miller and Griscom.<sup>1</sup> RIDGWAY'S JAY.

*Cyanocitta stelleri ridgwayi* Miller and Griscom, Amer. Mus. Nov., 184, p. 7, 1925—Volcan de Fuego, Guatemala (type in the American Museum of Natural History, New York).

*Cyanocitta coronata* (not *Garrulus coronatus* Swainson) Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 491, 1887—part, Guatemala.

*Cyanocitta stelleri coronata* Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 362, 1904—part, Guatemala and Chiapas; Dearborn, Field Mus. Nat. Hist., Orn. Ser., 1, p. 111, 1907—neighborhood of Tecpam, Guatemala (nest and eggs descr.).

*Range*.—Highlands of western Guatemala and southeastern Mexico (in State of Chiapas).

7: Guatemala (near Tecpam, 4; Sierra Santa Elena, 3).

**\*Cyanocitta stelleri suavis** Miller and Griscom.<sup>2</sup> NICARAGUAN JAY.

*Cyanocitta stelleri suavis* Miller and Griscom, Amer. Mus. Nov., 184, p. 7, 1925—San Rafael del Norte, Nicaragua (type in the American Museum of Natural History, New York).

*Range*.—Highlands of Nicaragua.

4: Nicaragua (San Rafael del Norte, 4).

**Cyanocitta stelleri lazula** van Rossem.<sup>3</sup> SALVADOR CRESTED JAY.

*Cyanocitta stelleri lazula* van Rossem, Auk, 45, p. 361, 1928—Los Esesmites, Dept. Chalatenango, El Salvador (type in collection of Donald R. Dickey, Pasadena).

*Range*.—Highlands (interior Cordilleras) of El Salvador and (?) Honduras.

<sup>1</sup> *Cyanocitta stelleri ridgwayi* Miller and Griscom: Exceedingly close to *C. s. azteca*, but white spot on lower eyelid larger and always present; upper back slightly less dusky, more nearly uniform blue with the lower back; light streaks on forehead at base of crest more bluish. This is rather an ill-defined race, which I am, however, unwilling to condemn before comparing it with more adequate material from eastern Mexico (*azteca*).

<sup>2</sup> *Cyanocitta stelleri suavis* Miller and Griscom: Very similar to *C. s. ridgwayi*, but white chin area less extensive and more broken by sooty tips to the feathers. The other supposed color differences prove to be seasonal, the brighter tone of the blue areas evidently being due to wear.

<sup>3</sup> *Cyanocitta stelleri lazula* van Rossem: Described as similar to *C. s. suavis*, especially in the restriction of the light area on chin and upper throat, but distinguishable by darker coloration. The crest is notably darker and more contrasted with the back.

We are not acquainted with this form. Honduras birds may possibly be referable to *lazula*.

Genus **PERISOREUS** Bonaparte<sup>1</sup>

*Perisoreus* Bonaparte, *Giornale Acadico*, 49, p. 42, 1831—type, by subs. desig. (Gray, *List Gen. Bds.*, p. 37, 1840), *Corvus canadensis* Linnaeus.

*Dysornithia* Swainson, *Fauna Bor.-Amer.*, 2, "1831," p. 495, pub. Feb., 1832—type, by subs. desig. (Baird, Brewer, and Ridgway, *Hist. N. Amer. Bds.*, 2, p. 297, 1875), *Corvus canadensis* Linnaeus.

**\*Perisoreus canadensis nigricapillus** Ridgway. LABRADOR JAY.

*Perisoreus canadensis nigricapillus* Ridgway, *Proc. U. S. Nat. Mus.*, 5, p. 15, 1882—Labrador (type in U. S. National Museum); idem, *Bull. U. S. Nat. Mus.*, 50, Part 3, p. 368, 1904—Labrador and Newfoundland (monog., full bibliog.).

*Perisoreus canadensis sanfordi* Oberholser,<sup>2</sup> *Proc. Biol. Soc. Wash.*, 27, p. 49, 1914—Fox Island River, Newfoundland (type in the American Museum of Natural History, New York); Noble, *Bull. Mus. Comp. Zool.*, 62, p. 554, 1919—Newfoundland (crit.).

*Range*.—Peninsula of Labrador and Newfoundland.

11: Labrador (Anatalok Bay, 2; Fort Chimo, "Ungava," 1; Lance-au-Loup, 1; Betchoins, 3; "Labrador," 1; mouth of Charles River, 1; "northern Ungava," 1); Newfoundland, 1.<sup>3</sup>

**Perisoreus canadensis barbouri** Brooks.<sup>4</sup> ANTICOSTI JAY.

*Perisoreus barbouri* Brooks, *Proc. New Engl. Zool. Cl.*, 7, p. 49, 1920—Ellis Bay, Anticosti Island, Gulf of St. Lawrence (type in Museum of Comparative Zoology, Cambridge, examined).

<sup>1</sup> Kleinschmidt (Berajah, *Corvus Perisoreus*, 1911) has prepared an excellent series of color drawings of these jays with a map showing their distribution. He unites the American races with the Palaearctic forms under the "Formenkreis" name "*Corvus Perisoreus*," and recognizes six American races: *fumifrons*, *griseus*, *obscurus*, *capitalis*, *canadensis*, and *nigricapillus*. In 1921, he comes to the conclusion that *Boanerges* Thayer and Bangs also belongs to this group. There is a very thorough account of the phylogenetic characters.

<sup>2</sup> *Perisoreus canadensis sanfordi* Oberholser is said to differ from *P. c. nigricapillus* by being smaller and by having the lower surface much paler, the crissum even whitish. We are unable to separate this race after comparison of the material in the American Museum of Natural History, including the type of *P. c. sanfordi*, and in the Museum of Comparative Zoology.

<sup>3</sup> *Supplementary material examined*.—A series of ten birds from Labrador localities in the National Museum of Canada, ten from Labrador and Newfoundland in the American Museum of Natural History, and ten from Labrador and Newfoundland in the Museum of Comparative Zoology.

<sup>4</sup> *Perisoreus canadensis barbouri* Brooks: Most closely resembling *P. c. nigricapillus* in size and general coloration, differing, however, by having a much grayer (less brownish) tone to the coloration of the back, a less brownish cast to the pileum, and clearer gray (less "smoky") under parts. It seems that much of the gray tone has faded in some specimens, but not so in others. The white area of the fore-crown is, on average, slightly less extensive than in *P. c. canadensis*.

*Material examined*.—Nine specimens (including the type) in the Museum of Comparative Zoology, Cambridge, Mass.



*Perisoreus canadensis barbouri* Bangs, Bull. Mus. Comp. Zool., **70**, p. 425, 1930 (crit.).

*Range*.—Anticosti Island, Gulf of St. Lawrence, Canada.

**\*Perisoreus canadensis canadensis** (Linnaeus). CANADA JAY.

*Corvus canadensis* Linnaeus, Syst. Nat., 12th ed., **1**, p. 158, 1766—based on *Garrulus canadensis fuscus* Brisson, Orn., **2**, p. 54, pl. 4, fig. 2; "Canada" = Quebec<sup>1</sup> (type in Réaumur Collection, probably lost).

*Garrulus fuscus* Vieillot, Nouv. Dict. Hist. Nat., nouv. éd., **12**, p. 479, 1817—new name for *Corvus canadensis* Linnaeus.

*Pica nuchalis* Wagler, Syst. Av., **1**, fol. 21, Genus *Pica*, sp. 14, 1827—new name for *Corvus canadensis* Linnaeus.

*Garrulus brachyrhynchus* Swainson, Fauna Bor.-Amer., **2**, "1831," p. 296, pl. 55, pub. Feb., 1832—Fort Franklin, Great Bear Lake (=juvenile plumage).

*Perisoreus canadensis canadensis* Ridgway, Bull. U. S. Nat. Mus., **50**, Part 3, p. 366, 1904—part (monog., full bibliog.); Swarth, Univ. Calif. Pub. Zool., **24**, p. 229, 1922—Stikine region, British Columbia (crit.); Brooks and Swarth, Pac. Coast Avifauna, **17**, p. 79, 1925—British Columbia.

*Perisoreus canadensis sanfordi* Oberholser, Proc. Biol. Soc. Wash., **27**, p. 49, 1914—part, Nova Scotia.<sup>2</sup>

*Range*.—Northern Canada, from Yukon Territory south and east to northern British Columbia, following the Rocky Mountains south to Banff (at least) and thence east across Canada (except south-central Alberta) to the western half of Quebec, New Brunswick, Nova Scotia, northern Maine, New Hampshire, Vermont, and New York, west to Minnesota; in winter occasionally as far south as vicinity of New York City, central Pennsylvania, southern Michigan, southern Wisconsin, and South Dakota.

8: Alberta (Banff, 1; Lake Louise, 1); Ontario (Minkoka, 1); New Brunswick (Long Lake, 1); Maine (Magalloway River, 3); Wisconsin (Ashland County, 1).<sup>3</sup>

**\*Perisoreus canadensis albescens** Peters.<sup>4</sup> RED DEER JAY.

<sup>1</sup> Cf. Oberholser, Proc. Biol. Soc. Wash., **27**, p. 49, 1914.

<sup>2</sup> Birds from Nova Scotia appear to me indistinguishable from a series from New Brunswick, Maine, and Ontario.

<sup>3</sup> *Supplementary material examined*.—Seventy-eight specimens from British Columbia, Yukon Territory, Mackenzie, Alberta, Saskatchewan, Manitoba, Ontario, Quebec, New Brunswick, and Nova Scotia in the National Museum of Canada.

<sup>4</sup> *Perisoreus canadensis albescens* Peters: The most clearly marked race of the entire group, differing from all others by its pale general coloration, particularly of the lower parts, and the broad pale area posterior to the crown patch being in sharp contrast to the crown and lower back. In size, it is slightly smaller than typical *canadensis*.

This race exhibits a tendency toward the pale-headed *capitalis*, some specimens having as large a white frontal area as that race, while others are closer to *canadensis*.

*Perisoreus canadensis albescens* Peters, Proc. New Engl. Zool. Cl., 7, p. 51, 1920—Red Deer, Alberta (type in Museum of Comparative Zoology, Cambridge, Mass.); Bangs, Bull. Mus. Comp. Zool., 70, p. 425, 1930 (note on type).

*Range*.—Apparently confined to central and southern Alberta.

6: Alberta (Red Deer, 4; Buffalo Lake, 2).<sup>1</sup>

**\**Perisoreus canadensis fumifrons* Ridgway.<sup>2</sup> ALASKA JAY.**

*Perisoreus canadensis fumifrons* Ridgway, Proc. U. S. Nat. Mus., 3, p. 5, 1880—St. Michael, Alaska (type in U. S. National Museum); idem, Bull. U. S. Nat. Mus., 50, Part 3, p. 369, 1904 (monog., full bibliog.).

*Range*.—Wooded parts of Alaska except the coast districts east and south of the Alaskan peninsula.

3: Alaska (Kelly River, Kenai Peninsula, 1; Matanuska River, 1; unspecified, 1).<sup>3</sup>

**\**Perisoreus canadensis capitalis* Ridgway.<sup>4</sup> WHITE-HEADED JAY.**

*Perisoreus canadensis* var. *capitalis* ("Baird MS.") Ridgway, Bull. Essex Inst., 5, pp. 193, 199, 1873—Henry's Fork, Wyoming (type in U. S. National Museum).

*Perisoreus canadensis capitalis* Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 370, 1904 (monog., full bibliog.); Brooks and Swarth, Pac. Coast Avifauna, 17, p. 80, 1925—southern British Columbia.

*Range*.—Higher Rocky Mountains from southern British Columbia to New Mexico and Arizona, east to western South Dakota.

12: British Columbia (Okanagan, 1; Shuswap Falls, 2); Montana (Chief Mountain Lake, 1); Colorado (Routt County, 3; Gore Range, 2; Berthoud's Pass, 1; Coulter, 1; Rio Blanco County, 1).<sup>5</sup>

<sup>1</sup> *Supplementary material examined*.—Edmonton, 3; Fort Saskatchewan, 1; Athabasca River (one mile above Pelican River), 1, in National Museum of Canada.

<sup>2</sup> *Perisoreus canadensis fumifrons* Ridgway: Differs but by degree from *P. c. canadensis*, by having the white fore-crown patch less extensive, and the under parts on average darker, as well as by very slightly smaller size.

This is a very poorly defined race, and nearly all the specimens can be matched by selected individuals in the series of seventy-eight skins of typical *canadensis* that has been examined. There seems to be no discernible difference in the color of the back, while the extent of white varies considerably.

<sup>3</sup> *Supplementary material examined*.—Sixteen specimens from Alaska in the National Museum of Canada.

<sup>4</sup> *Perisoreus canadensis capitalis* Ridgway: Similar to *P. c. canadensis*, but differs by larger size, generally paler coloration (though not so pale as *P. c. albescens*), and by having the greater part of the crown white.

This, a very well-marked race, *albescens* and *canadensis*, are the only ones with unspotted back which consistently show definitive racial characters. The other four races are poorly characterized, and hardly worthy of nomenclatorial recognition.

<sup>5</sup> *Supplementary material examined*.—Thirteen specimens from southern British Columbia in the National Museum of Canada.

**\*Perisoreus canadensis obscurus** Ridgway.<sup>1</sup> OREGON JAY.

*Perisoreus canadensis* var. *obscurus* Ridgway, Bull. Essex Inst., 5, pp. 194, 199, 1873—Shoalwater Bay, Washington (type in U. S. National Museum).

*Perisoreus obscurus obscurus* Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 372, 1904—part (monog., full bibliog.); Grinnell, Pac. Coast Avifauna, 11, p. 98, 1915—northern humid coast belt of California.

*Range*.—Pacific Coast region of northwestern United States, from Chehalis County, Washington, to Mendocino County, California.

2: Oregon (Tillamook, 2).

**\*Perisoreus canadensis rathbuni** Oberholser.<sup>2</sup> RATHBUN'S JAY.

*Perisoreus obscurus rathbuni* Oberholser, Proc. Biol. Soc. Wash., 30, p. 185, 1917—Lake Crescent, Clallam County, Washington (type in collection of S. F. Rathbun).

*Perisoreus obscurus obscurus* Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 372, 1904—part, northwestern Washington.

*Range*.—Northwestern Washington, north to Snohomish County and Strait of Juan de Fuca, west to western Clallam County, south to King and Clallam counties.

1: Washington (Tacoma, 1).

**\*Perisoreus canadensis griseus** Ridgway.<sup>3</sup> GRAY JAY.

*Perisoreus obscurus griseus* Ridgway, Auk, 16, p. 255, 1899—Keechelus Lake, Kittinas [= Kittitas] County, eastern Washington (type in U. S. National Museum); idem, Bull. U. S. Nat. Mus., 50, Part 3, p. 373, 1904 (monog., full bibliog.); Grinnell, Pac. Coast Avifauna, 11, p. 99, 1915—northern California east of humid coast belt; Brooks and Swarth, Pac. Coast Avifauna, 17, p. 80, 1925—Vancouver Island and southwestern British Columbia (crit.).

*Perisoreus obscurus obscurus* Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 372, 1904—part, Vancouver Island and opposite mainland.

<sup>1</sup> *Perisoreus canadensis obscurus* Ridgway: Differs from all other races of *P. canadensis* by having the dorsal feathers marked with distinct whitish shaft-streaks and in paler general coloration, the upper parts being much more brownish, the under parts much more whitish; size smaller than *P. c. canadensis*.

The white shaft-streaks are present in a number of specimens from eastern and central Canada of both *P. c. canadensis* and *P. c. albescens*, though somewhat less distinct, being often partially concealed. The Oregon Jay and its near relatives, *P. c. griseus* and *P. c. rathbuni*, on migration apparently do not invade the range of any other race of this group.

<sup>2</sup> *Perisoreus canadensis rathbuni* Oberholser: Similar to *P. c. obscurus*, but on average larger; back darker; nuchal area slightly broader and more whitish. This race needs more material for corroboration.

<sup>3</sup> *Perisoreus canadensis griseus* Ridgway: Similar to *P. c. obscurus*, but larger and paler.

*Range*.—Southwestern British Columbia (including Vancouver Island) south through eastern Washington and Oregon to northern California (Mount Shasta and the Warner Mountains).

4: Oregon (Logan, 4).<sup>1</sup>

Family PARIDAE. Titmice

Subfamily PARINAE

Genus PARUS Linnaeus<sup>2</sup>

*Parus* Linnaeus, Syst. Nat., 10th ed., 1, p. 189, 1758—type, by subs. desig. (Gray, List Gen. Bds., p. 23, 1840), *Parus major* Linnaeus.

*Poecile* (not *Poecilus* Bonelli, 1809) Kaup, Skizz. Entw.-Gesch. Europ. Thierw., p. 114, 1829—type, by subs. desig. (Gray, Cat. Gen. Subgen. Bds., p. 38, 1855), *Parus palustris* Linnaeus.

*Poecila* Gray, Genera Bds., 1, p. [191], 1848—emendation of *Poecile* Kaup.

*Penthestes* Reichenbach, Av. Syst. Nat., pl. 62, 1850—type, *Parus lugubris* Temminck.<sup>3</sup>

*Baeolophus* Cabanis, Mus. Hein., 1, p. 91, 1851—type, by orig. desig., *Parus bicolor* Linnaeus.

*Paecila* Bonaparte, Ann. Sci. Nat., (4), 1, p. 121, 1854—emendation of *Poecile* Kaup.

*Poikilis* J. H. Blasius, List Bds. Eur., p. 8, 1862—emendation of *Poecile* Kaup.

*Poecililia* Taczanowski, Journ. Orn., 20, p. 443, 1872—emendation of *Poecile* Kaup.

*Paecililia* Dybowski, Bull. Soc. Zool. France, 8, p. 361, 1883—emendation of *Poecile* Kaup.

*Phaeopharus* Madarász, Magyar. Mad., p. 139, 1900—type, by orig. desig., *Parus palustris* Linnaeus.

**\**Parus atricapillus atricapillus* Linnaeus. BLACK-CAPPED CHICKADEE.**

*Parus atricapillus* Linnaeus, Syst. Nat., 12th ed., 1, p. 341, 1766—based on "*Parus canadensis atricapillus*" Brisson, Orn., 3, p. 553, pl. 29, fig. 1, 1760; Canada (type in Réaumur Collection).

*Parus melanocephalus* Brehm, Vogelfang, p. 242, 1855—North America.

<sup>1</sup> *Supplementary material examined*.—Fourteen specimens from British Columbia and Oregon in the National Museum of Canada.

<sup>2</sup> Unless a large number of more or less artificial generic groups, having no other than nominal value, be accepted, the only logical course is to unite all the true chickadees in the genus *Parus*, a procedure that seems to us the lesser evil. In addition to the synonyms given above, several other generic terms have been proposed for Old World species (cf. Hellmayr, in Wytsman, Gen. Av., Part 18, pp. 4-5, 1911).

<sup>3</sup> Though no specific name is quoted by Reichenbach, his drawing (head) clearly shows this species.

*Penthestes atricapillus atricapillus* Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 397, 1904—northeastern United States and southeastern Canada (monog., full bibliog.).

*Parus atricapillus atricapillus* Hellmayr, in Wytzman, Gen. Av., Part 18, p. 34, 1911 (range).

*Range*.—Canadian and Transition zones from northern Ontario, Quebec, and Newfoundland south to southern Missouri, Illinois, northern Indiana, Ohio, Pennsylvania, northern New Jersey, and in the Alleghenies south to North Carolina.<sup>1</sup>

80: Massachusetts (Great Island, 2; Natick, 1; Cambridge, 1; Watertown, 2); Connecticut (East Hartford, 21); New York (Petersboro, 1; Shelter Island, 4); Indiana (Bluffton, 2; Stark County, 1); Illinois (Chicago, 1; Deerfield, 2; Roby, 1; Lake Forest, 1; Joliet, 1; Beach, 5; Henry, 7); Wisconsin (Beaver Dam, 16; Woodruff, 3); Iowa (Knoxville, 8).

**\**Parus atricapillus septentrionalis* Harris. LONG-TAILED CHICKADEE.**

*Parus septentrionalis* Harris, Proc. Acad. Nat. Sci. Phila., 2, No. 12, Nov.–Dec., 1845, p. 300, pub. Feb. 18, 1846—Yellowstone River, about thirty miles “below” [=above] its junction with the Missouri [=Montana] (type in Academy of Natural Sciences, Philadelphia; cf. Stone, Proc. Acad. Nat. Sci. Phila., 1899, p. 21).

*Parus albescens* Baird, Rep. Pac. R. R. Surv., 9, p. XXXVII, 1858—Rocky Mountains (nomen nudum; but characters given, without name, on p. 389, in text).

*Penthestes atricapillus septentrionalis* Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 399, 1904—Great Plains and Rocky Mountains (monog., full bibliog.).

*Parus atricapillus septentrionalis* Hellmayr, in Wytzman, Gen. Av., Part 18, p. 34, 1911 (range).

*Range*.—Canadian and Transition zones from Kenai Peninsula, Alaska, central Mackenzie, and northern Manitoba south to northern New Mexico and eastern Kansas, and from eastern Oregon to western Minnesota and western Texas.

10: New Mexico (Santa Fé, 1); Colorado (Loveland, 3; Colorado Springs, 1); Wyoming (Newcastle, 1); Montana (Dry Creek, 1); Oregon (Portland, 1; Enterprise, 1); British Columbia (Okanagan, 1).

<sup>1</sup> Birds indistinguishable (or very nearly so) from *P. a. atricapillus*, but obviously intergrades between *P. a. septentrionalis* and *P. a. occidentalis* occupy an area in southwestern British Columbia, eastern Washington, western Montana, and western Idaho.

**\*Parus atricapillus occidentalis Baird. OREGON CHICKADEE.**

*Parus occidentalis* Baird, Rep. Pac. R. R. Surv., 9, p. 391, 1858—"Northern Pacific coast of United States" (type from Shoalwater Bay, Washington, in U. S. National Museum).

*Penthestes atricapillus occidentalis* Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 402, 1904—humid northwest coast district (monog., full bibliog.).

*Parus atricapillus occidentalis* Hellmayr, in Wytsman, Gen. Av., Part 18, p. 34, 1911 (range).

*Range*.—Transition zone of the northwest coast of North America, from extreme southwestern British Columbia to extreme northwestern California.

4: Oregon (Logan, 2; Tillamook, 2).

**Parus atricapillus turneri Ridgway. YUKON CHICKADEE.**

*Parus atricapillus turneri* Ridgway, Proc. Biol. Soc. Wash., 2, p. 89, 1884—St. Michael, Alaska (type in U. S. National Museum); Hellmayr, in Wytsman, Gen. Av., Part 18, p. 34, 1911 (range).

*Penthestes atricapillus turneri* Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 402, 1904—Alaska (monog., full bibliog.).

*Range*.—Hudsonian zone of Alaska north and west of Cook Inlet.

**\*Parus carolinensis<sup>1</sup> carolinensis Audubon. CAROLINA CHICKADEE.**

*Parus carolinensis* Audubon, Bds. Amer. (folio), pl. 160, 1833; idem, Orn. Biog., 2, p. 341, 1834—southern states from lower Louisiana through the Floridas to the border of the Roanoke River, separating North Carolina from Virginia (type from near Charleston, South Carolina, in U. S. National Museum); Brewster, Auk, 3, p. 177, 1886—western North Carolina (habits, song, crit.).

*Penthestes carolinensis carolinensis* Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 403, 1904—eastern United States south of 40° latitude (monog., full bibliog.).

*Parus atricapillus carolinensis* Hellmayr, in Wytsman, Gen. Av., Part 18, p. 34, 1911 (range).

*Range*.—Upper and Lower Austral zones from central Missouri, Indiana, central Ohio, southern Pennsylvania, and central New Jersey south to southeastern Louisiana and the Gulf coast.

51: Maryland (Howard County, 1; Wheatland, 1); District of Columbia (Washington, 1); Virginia (Falls Church, 4); West Virginia

<sup>1</sup> Examination of a large series of skins, as well as studies in the field, convinced me of the specific distinctness of *P. carolinensis*, which had already been insisted upon by Brewster (l.c.) and more recently by Oberholser (Auk, 35, p. 465, 1918). Not only are its call-notes very different from those of *P. a. atricapillus*, but the ranges of the two species overlap to a considerable extent in the Alleghenies and in Indiana, where no intermediates have ever been found.

(Petroleum, 1); North Carolina (Raleigh, 6); Georgia (McIntosh County, 1); Indiana (Brookville, 1); Illinois (Grand Chain, 9; Olive Branch, 1; Mound City, 7); Arkansas (Winslow, 2); Louisiana (West End, Orleans County, 1; Chef Menteur, 1; New Orleans, 1; Buras, 10); Mississippi (Holly Springs, 3).

**\**Parus carolinensis impiger* Bangs. FLORIDA CHICKADEE.**

*Parus carolinensis impiger* Bangs, Proc. New Engl. Zool. Cl., 4, p. 1, 1903—Deep Creek, near Lake Ashby, eastern Florida (type in Bangs Collection, now in Museum of Comparative Zoology, Cambridge, Mass.; cf. Bangs, Bull. Mus. Comp. Zool., 70, p. 348, 1930).

*Penthestes carolinensis impiger* Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 406, 1904—Florida (monog.).

*Parus atricapillus impiger* Hellmayr, in Wytzman, Gen. Av., Part 18, p. 34, 1911—Florida.

*Range*.—Peninsula of Florida.

13: Florida (East Pass, 3; Mary Esther, 5; Town Point, 1; Orange County, 2; Nassau County, 2).

**\**Parus carolinensis agilis* Sennett. PLUMBEOUS CHICKADEE.**

*Parus carolinensis agilis* Sennett, Auk, 5, p. 46, 1888—Bee County, Texas (type in Sennett Collection, now in the American Museum of Natural History, New York).

*Penthestes carolinensis agilis* Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 406, 1904—Texas and Oklahoma (monog., full bibliog.).

*Parus atricapillus agilis* Hellmayr, in Wytzman, Gen. Av., Part 18, p. 34, 1911 (range).

*Range*.—Lower Austral zone from northern Oklahoma to Texas (Refugio and Kendall counties).

6: Texas (Ingram, 2; Waring, 2; Bowie, 1; Kerrville, 1).

**\**Parus sclateri sclateri* Kleinschmidt.<sup>1</sup> SOUTH MEXICAN CHICKADEE.**

*Parus meridionalis* (not of Lilljeborg, 1852) Sclater, Proc. Zool. Soc. Lond., 24, "1856," p. 293, pub. Jan., 1857—El Jacale,<sup>2</sup> southern Mexico (type in coll. A. Sallé, now in British Museum); idem, l.c., 25, p. 81, 1857 (crit.); idem, l.c., 26, p. 299, 1858—La Parada, Oaxaca; idem, l.c., 27, p. 363,

<sup>1</sup> This species does not seem to be related to the Old World *P. palustris*, as has been suggested by Hartert (Vög. Pal. Fauna, 1, p. 375, note, 1905), although the pileum is slightly more glossy than in the other American black-capped titmice. While I am inclined to believe that it may turn out to be a strongly differentiated derivative of *P. carolinensis*, its exact relationship can only be determined by observations in the field.

<sup>2</sup> Either in Vera Cruz or Puebla (Orizaba region).

1859—near Jalapa, Vera Cruz; idem, Cat. Coll. Amer. Bds., p. 14, 1862—La Parada; Baird, Rev. Amer. Bds., 1, p. 81, 1864—Orizaba (crit.); Sumichrast, Mem. Bost. Soc. N. H., 1, p. 544, 1869—Moyoapam, near Orizaba; Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 57, 1880—Mexico (El Jacale, La Parada, Jalapa, Moyoapam, Tierra Fria); Gadow, Cat. Bds. Brit. Mus., 8, p. 46, 1883—El Jacale, Mexico; Ferrari-Perez and Ridgway, Proc. U. S. Nat. Mus., 9, p. 134, 1886—Teziutlan, Puebla (crit.); Chapman, Bull. Amer. Mus. N. H., 10, p. 36, 1898—Las Vigas, Vera Cruz (call-note).

*Parus sclateri* Kleinschmidt, Journ. Orn., 45, p. 133 (in text), 1897—new name for *Parus meridionalis* Sclater, preoccupied; Nelson, Auk, 15, p. 160, 1898 (nomencl.); Hellmayr, in Wytzman, Gen. Av., Part 18, p. 32, 1911—part, states of Oaxaca, Vera Cruz, and Puebla.

*Parus (Poecile) sclateri* Hellmayr, Tierreich, Lief. 18, p. 52, 1903—part, Mexico.

*Penthestes sclateri* Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 407, 1904—part, states of Oaxaca, Vera Cruz, and Puebla (monog.).

**Range.**—Highlands of southern Mexico, in states of Zacatecas (Sierra Valparaiso), Mexico (valley of Mexico), Puebla (Teziutlan), Vera Cruz (Orizaba, Moyoapam, Las Vigas, Jalapa), and Oaxaca (La Parada).

2: Zacatecas (Sierra Valparaiso, 2).

**\**Parus sclateri eidos* (Peters).<sup>1</sup> NORTH MEXICAN CHICKADEE.**

*Penthestes sclateri eidos* Peters, Proc. New Engl. Zool. Cl., 9, p. 113, 1927—Chiricahua Mountains, Arizona (type in Museum of Comparative Zoology, Cambridge, Mass.).

*Parus meridionalis* (not of Sclater) Brewster, Bull. Nutt. Orn. Cl., 6, p. 252, 1881—Chiricahua Mountains, Arizona; idem, l.c., 7, p. 79, 1882—Morse's Hill, Chiricahua Mountains; Allen, Bull. Amer. Mus. N. H., 5, p. 41, 1893—Chihuahua and Tatuaca, Chihuahua, Mexico.

*Parus (Poecile) sclateri* (not of Kleinschmidt) Hellmayr, Tierreich, Lief. 18, p. 52, 1903—part, southern Arizona.

*Penthestes sclateri* Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 407, 1904—part, southern Arizona (Chiricahua Mountains); Miller, Bull. Amer. Mus. N. H., 22, p. 182, 1906—Las Bocas and Cienaga de las Vacas, northwestern Durango.

*Parus sclateri* Hellmayr, in Wytzman, Gen. Av., Part 18, p. 32, 1911—part, Chiricahua Mountains, Arizona.

**Range.**—Extreme southeastern Arizona (Chiricahua Mountains) and extreme southwestern Texas (Davis Mountains), south into northern Mexico, in states of Chihuahua and northwestern Durango.

<sup>1</sup> *Parus sclateri eidos* (Peters) differs from the typical race by having the grayish wash on the sides and flanks paler and less olivaceous, and the whitish area in the middle of breast and abdomen more extensive.

Birds from Chihuahua are identical with those from the type locality and a single example from the Davis Mountains, Texas.



22: Arizona (Chiricahua Mountains, 4; Paradise, 1); Texas (Davis Mountains, 1); Mexico, Chihuahua (thirty miles west of Miñaca, 11; Babilcora, 1; Bastillos, 4).

***Parus gambeli grinnelli* (van Rossem).<sup>1</sup> GRINNELL'S CHICKADEE.**

*Penthestes gambeli grinnelli* van Rossem, Auk, 45, p. 104, 1928—Priest Lake, Bonner County, Idaho (type in collection of Donald R. Dickey, Pasadena).

*Penthestes gambeli* (not *Parus gambeli* Ridgway, 1886) Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 408, 1904—part, British Columbia and northern Idaho.

*Penthestes gambeli abbreviatus* (not of Grinnell) Oberholser, Auk, 36, p. 424, 1919—part, British Columbia, western Alberta (Smoky River, Henry House), Washington, Oregon, and Idaho; Swarth, Univ. Calif. Pub. Zool., 24, p. 297, 1922—Stikine River, British Columbia; idem, l.c., 24, p. 368, 1924—Skeena River, Nine-Mile Mountain, British Columbia; idem, l.c., 30, p. 142, 1926—Atlin region, British Columbia.

*Penthestes gambeli gambeli* Grinnell, Univ. Calif. Pub. Zool., 17, p. 508, 1918—part, British Columbia, Alberta, and Idaho.

**Range.**—Northern British Columbia and extreme western Alberta (Smoky River, Henry House) south to east-central Oregon, eastern Washington, and northern Idaho; casual west of the Cascades.

**\**Parus gambeli abbreviatus* (Grinnell).<sup>2</sup> SHORT-TAILED CHICKADEE.**

*Penthestes gambeli abbreviatus* Grinnell, Univ. Calif. Pub. Zool., 17, p. 510, 1918—Horse Creek, Siskiyou Mountains, near Seiad Valley P.O., Siskiyou County, California (type now in Museum of Vertebrate Zoology, Berkeley); Oberholser, Auk, 36, p. 424, 1919—part, California and Nevada.

*Penthestes gambeli* (not *Parus gambeli* Ridgway, 1886) Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 408, 1904—part (references and localities from southern Oregon, central and northern California, and Nevada).

**Range.**—Higher mountains of central and northern California, southern Oregon, and northwestern Nevada south to Mount Sanhedrin and Mount Whitney.

<sup>1</sup> *Parus gambeli grinnelli* (van Rossem): Similar to *P. g. abbreviatus* in relative proportions of wing and tail, but on average smaller and darker, the upper back being of the identical shade of *P. a. atricapillus*. Wing (males), 64½–69; tail, 56–60½ (van Rossem, l.c.).

"In relative darkness of tone *P. g. grinnelli* bears much the same relation to *gambeli* as *P. g. baileyae* does to *P. g. abbreviatus*." It is stated by the describer to intergrade with *abbreviatus* in east-central Oregon, though more material is admittedly required to define the limits of the intergradation area.

<sup>2</sup> *Parus gambeli abbreviatus* (Grinnell): In coloration nearest to *P. g. inyoensis*, but back, sides, and flanks not quite so pale (cartridge buff in fresh plumage); tail much shorter; bill on average smaller. Wing (males), 67–72; tail, 63–68; bill (exposed culmen), 7.2–8.7.

6: California (Chaparral, Butte County, 2; Sierra City, 2; Battle Creek, Shasta County, 2).

**\*Parus gambeli baileyae** (Grinnell).<sup>1</sup> MRS. BAILEY'S CHICKADEE.

*Penthestes gambeli baileyae* Grinnell, Condor, **10**, p. 29, 1908—Mount Wilson, San Gabriel Mountains, Los Angeles County, California (type now in Museum of Vertebrate Zoology, Berkeley); idem, Univ. Calif. Pub. Zool., **17**, p. 511, 1918—mountains of southern California (crit.).

*Parus gambeli baileyae* Hellmayr, in Wytzman, Gen. Av., Part 18, p. 32, 1911—southern California.

*Range*.—Higher mountains of southern California, from the extreme southern Sierra Nevada in Tulare County and the Santa Lucia Mountains in Monterey County to the Cuyamaca Mountains in San Diego County.

4: California (Big Bear Valley, San Bernardino County, 2; San Sevaie Flats, San Bernardino County, 1; Piute Mountains, Kern County, 1).

**\*Parus gambeli atratus** (Grinnell and Swarth).<sup>2</sup> SAN PEDRO CHICKADEE.

*Penthestes gambeli atratus* Grinnell and Swarth, Univ. Calif. Pub. Zool., **30**, p. 163, 1926—La Grulla, Sierra San Pedro Mártir, Lower California, Mexico (type in Museum of Vertebrate Zoology, Berkeley); Grinnell, l.c., **32**, p. 223, 1928—Sierra San Pedro Mártir and Sierra Juárez, Lower California.

*Parus gambeli* (not of Ridgway) Bryant, Proc. Calif. Acad. Sci., (2), **2**, p. 317, 1889—"about Hansen's" [=Laguna Hanson, Sierra Juárez] and San Pedro Mártir, Lower California; Anthony, Zoe, **4**, p. 246, 1893—Sierra San Pedro Mártir.

*Penthestes gambeli* Ridgway, Bull. U. S. Nat. Mus., **50**, Part 3, p. 408, 1904—part, northern Lower California.

*Range*.—Mountains of northern Lower California (Sierra San Pedro Mártir and Sierra Juárez).

2: Lower California (San Pedro Mártir Mountains, 2).

**\*Parus gambeli gambeli** Ridgway. MOUNTAIN CHICKADEE.

*Parus montanus* (not of Baldenstein, 1827) Gambel, Proc. Acad. Nat. Sci. Phila., **1**, p. 259, 1843—near Santa Fé, New Mexico (type lost, formerly

<sup>1</sup> *Parus gambeli baileyae* (Grinnell): Agreeing in proportion of tail with *P. g. abbreviatus*, but bill larger, longer as well as heavier, and coloration of back, sides, and flanks much grayer (smoke gray to mouse gray). Wing (males), 66–72; tail, 63–67; bill (exposed culmen), 8–9.5.

<sup>2</sup> *Parus gambeli atratus* (Grinnell and Swarth): Nearest to *P. g. baileyae*, but tail longer, coloration slightly darker, and white frontal band and superciliaries much restricted. Wing (males), 65–71½; tail, 60–62½; bill (exposed culmen), 9.2–11.

in Academy of Natural Sciences, Philadelphia); idem, Journ. Acad. Nat. Sci. Phila., (2), 1, p. 35, pl. 8, fig. 1, 1847—New Mexico and Arizona (habits).

*Parus gambeli* Ridgway, in A. O. U. Check List, p. 335, 1886—new name for *Parus montanus* Gambel, preoccupied.

*Penthestes gambeli* Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 408, 1904—part, Rocky Mountains of the United States.

*Parus gambeli gambeli* Hellmayr, in Wytzman, Gen. Av., Part 18, p. 32, 1911 (range in part).

*Penthestes gambeli gambeli* Grinnell, Univ. Calif. Pub. Zool., 17, p. 508, 1918—part, Montana, Wyoming, Utah, Colorado, Texas, New Mexico, and Arizona localities (crit.); Oberholser, Sci. Pub. Clevel. Mus. Nat. Hist., 1, p. 116, 1930—Cloudercroft, New Mexico.

*Parus gambeli thayeri* Birtwell, Auk, 18, p. 166, 1901—near Albuquerque, New Mexico (type now in U. S. National Museum).<sup>1</sup>

**Range.**—Rocky Mountains of the United States, from Wyoming and Montana south to Arizona, New Mexico, and western Texas (Davis Mountains).

6: Montana (Columbia Falls, 2); Colorado (Mill City, 1; Williams Range, Routt County, 2; Hot Sulphur Springs, 1).

### **Parus gambeli inyoensis** (Grinnell).<sup>2</sup> INYO CHICKADEE.

*Penthestes gambeli inyoensis* Grinnell, Univ. Calif. Pub. Zool., 17, p. 509, 1918—Panamint Mountains, three miles east of Jackass Spring, Inyo County, California (type in Museum of Vertebrate Zoology, Berkeley).

**Range.**—Higher mountains of eastern California, from Mono Craters and the White Mountains in Mono County to the Panamint Mountains in Inyo County.

### **Parus cinctus alascensis** (Prazák). ALASKA CHICKADEE.

*Poecila cincta alascensis* Prazák, Orn. Jahrb., 6, p. 92, 1895—"Alaska and Ochotsk."<sup>3</sup>

*Parus cinctus* (not of Boddaert) Ridgway, Bull. Nutt. Orn. Cl., 3, p. 37, 1878—St. Michael, Alaska; Allen, l.c., 5, p. 89, 1880—St. Michael; McLenegan, Cruise Corwin, p. 113, 1884—Kowak River, Alaska.

<sup>1</sup> Based on a specimen soiled through contact with charred trees.

<sup>2</sup> *Parus gambeli inyoensis* (Grinnell): The palest of all the races, sides, flanks, and back being pervaded with pale buff (cartridge buff); tail about as long as in typical *gambeli*; bill somewhat smaller. Wing (males), 69–73; tail, 66–72; bill (exposed culmen), 7.4–8.8.

<sup>3</sup> No type exists. The author, who was insane, probably never examined a specimen himself, and based his account solely on the figure in Turner's "Contributions to the Natural History of Alaska," the locality "Ochotsk" being in all probability fictitious. St. Michael, Norton Sound, Alaska (ex Turner), may be accepted as terra typica. The ranges of the five recognized races of the Lapland Chickadee are given in Wytzman, Gen. Av., Part 18, p. 37, 1911.

*Parus cinctus oblectus* (not *Parus oblectus* Cabanis) Turner, Contrib. Nat. Hist. Alaska, p. 182, pl. 10, fig. inf., 1886—Yukon district [=St. Michael]; Macfarlane, Proc. U. S. Nat. Mus., 14, p. 445, 1891—Fort Anderson, Mackenzie (breeding, nest descr.).

*Parus cinctus alascensis* Grinnell, Pac. Coast Avifauna, 1, p. 59, 1900—Kowak River, Alaska; Hellmayr, in Wytsman, Gen. Av., Part 18, p. 37, 1911—northern Alaska east to northern Mackenzie (Fort Anderson).

*Penthestes cinctus alascensis* Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 411, 1904—part, northern Alaska and northern Mackenzie (monog., full bibliog.).

*Range*.—Northern Alaska (St. Michael and valley of the Kowak River) east to northern Mackenzie (Fort Anderson).

**\**Parus hudsonicus hudsonicus* Forster.<sup>1</sup> HUDSONIAN CHICKADEE.**

*Parus hudsonicus* Forster, Philos. Trans., 62, pp. 408, 430, 1772—Severn River, [west coast of] Hudson Bay, Canada (type lost); McLenegan, Cruise Corwin, p. 114, 1884—Kowak River, Alaska; Townsend, Auk, 4, p. 13, 1887—Kowak River (midsummer).

*Parus hudsonicus evura* Coues, Key N. Amer. Bds., 2nd ed., p. 267, 1884—"Alaska" (no type locality nor type specified); Rhoads, Auk, 10, p. 331, 1893—central and southern Alaska (crit.); Bishop, N. Amer. Fauna, 10, p. 93, 1900—Caribou Crossing, Lake Tagish, Lake Lebarge, St. Michael, Alaska; idem, Auk, 17, p. 118, 1900—Alaska (crit.); Grinnell, Pac. Coast Avifauna, 1, p. 60, 1900—Kowak River, Alaska (habits, crit.); McGregor, Condor, 4, p. 144, 1902—Cairn, Norton Sound, Alaska.

*Parus stoneyi* Ridgway, Man. N. Amer. Bds., p. 591, 1887—Kowak River, northwestern Alaska (type in U. S. National Museum).

*Parus hudsonicus ungava* Rhoads, Auk, 10, p. 328, 1893—Fort Chimo, Ungava, Labrador (type in U. S. National Museum).

*Penthestes hudsonicus hudsonicus* Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 412, 1904—from Hudson Bay to Alaska (monog., full bibliog.).

*Parus hudsonicus hudsonicus* Hellmayr, in Wytsman, Gen. Av., Part 18, p. 37, 1911 (range).

*Range*.—Hudsonian and Canadian zones from the Kowak Valley, Alaska, and tree limit in central Mackenzie and northern Manitoba south to central Manitoba, Ontario, and northern Michigan; in winter casually to northern Illinois.

1: Illinois (Beach, 1).

**\**Parus hudsonicus columbianus* Rhoads. COLUMBIAN CHICKADEE.**

*Parus hudsonicus columbianus* Rhoads, Auk, 10, p. 23, 1893—Field, British Columbia (type in coll. of S. N. Rhoads, now in Academy of Natural

<sup>1</sup> This chickadee, in general coloration, is so much like *P. c. alascensis* as to suggest conspecific relationship. Both are, however, stated to breed in the Kowak Valley, Alaska, as may be seen by consulting the various Alaskan references quoted under *P. h. hudsonicus* and *P. c. alascensis*.

Sciences, Philadelphia; cf. Stone, Proc. Acad. Nat. Sci. Phila., 1899, p. 27); idem, l.c., 10, p. 331, 1893—British Columbia and St. Mary's Lake, Montana (crit.); Chapman, Bull. Amer. Mus. N. H., 16, p. 244, 1902—Homer, Alaska (crit.); Hellmayr, in Wytzman, Gen. Av., Part 18, p. 37, 1911 (range).

*Penthestes hudsonicus columbianus* Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 414, 1904—northern Rocky Mountains from northern Montana to Kenai Peninsula, Alaska (monog., full bibliog.); Swarth, Univ. Calif. Pub. Zool., 24, p. 368, 1924—Nine-mile Mountain, Skeena River, British Columbia; idem, l.c., 30, p. 142, 1926—Atlin region, British Columbia (crit.).

*Range*.—Northern Rocky Mountains, from Kenai Peninsula, Alaska, south to British Columbia, western Alberta, and northern Montana.

1: British Columbia (Cariboo, Willow River, 1).

**\*Parus hudsonicus littoralis** Bryant. ACADIAN CHICKADEE.

*Parus hudsonicus* var. *littoralis* Bryant, Proc. Bost. Soc. N. H., 9, p. 368, 1865—Yarmouth, Nova Scotia (cotypes now in Museum of Comparative Zoology, Cambridge, Mass.; cf. Bangs, Bull. Mus. Comp. Zool., 67, p. 206, 1925; l.c., 70, p. 348, 1930).

*Penthestes hudsonicus nigricans* Townsend, Auk, 33, p. 74, 1916—Shekatika, head of inlet Saguenay County, Quebec, Canadian Labrador (type in Museum of Comparative Zoology, Cambridge, Mass.); Taverner, Canad. Field Natur., 43, p. 79, 1929—Canadian Labrador (crit.;=juv.); Bangs, Bull. Mus. Comp. Zool., 70, p. 348, 1930—Shekatika (crit.;=juv.).

*Penthestes hudsonicus littoralis* Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 415, 1904—southeastern British provinces and northeastern United States (monog., full bibliog.).

*Parus hudsonicus littoralis* Hellmayr, in Wytzman, Gen. Av., Part 18, p. 37, 1911 (range).

*Range*.—Boreal zones from Labrador, Quebec, and Newfoundland south to Nova Scotia, Maine, the mountains of northern Vermont and New Hampshire, and the Adirondacks, New York; in winter casually to Massachusetts, Rhode Island, Connecticut, southern New York, Pennsylvania, and New Jersey.

8: Labrador (Anatalok Bay, 1); Ontario (Prescott County, 2; Moose Factory, 1); New Brunswick (Campbelltown, 1; Magdalen Islands, 1); Nova Scotia (Weymouth, 1); Maine (Lincoln, 1).

**\*Parus rufescens rufescens** Townsend. CHESTNUT-BACKED CHICKADEE.

*Parus rufescens* Townsend, Journ. Acad. Nat. Sci. Phila., 7, Part 2, p. 190, 1837—forests of the Columbia River [=Fort Vancouver, Washington]

(cotypes in U. S. National Museum and Academy of Natural Sciences, Philadelphia).

*Penthestes rufescens vivax* Grinnell, Univ. Calif. Pub. Zool., 5, p. 414, 1910—Latouche Island, Prince William Sound, Alaska (type in Museum of Vertebrate Zoology, Berkeley).

*Parus rufescens rufescens* Grinnell, Auk, 21, p. 380, 1904 (range, bibliog.); Hellmayr, in Wytsman, Gen. Av., Part 18, p. 37, 1911 (range).

*Penthestes rufescens rufescens* Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 416, 1904—Pacific coast from northern California to Alaska, east to Montana (monog., full bibliog.); Swarth, Univ. Calif. Pub. Zool., 24, p. 298, 1922—Stikine River region; idem, l.c., p. 369, 1924—Skeena River region, British Columbia.

*Range*.—Pacific coast in Canadian and Humid Transition zones, from Prince William Sound, Alaska, to Sonoma County, California, east to western Montana (Great Falls).

10: Alaska (Sitka, 1); Oregon (Logan, 6; Netarts, 1); California (Sonoma County, 2).

**\**Parus rufescens neglectus* Ridgway. NICASIO CHICKADEE.**

*Parus rufescens*  $\beta$  *neglectus* Ridgway, Proc. U. S. Nat. Mus., 1, p. 485, 1879—coast of California (type from Nicasio, Marin County, in U. S. National Museum).

*Parus rufescens neglectus* Grinnell, Auk, 21, pp. 380, 381, 1904 (range, bibliog.); Hellmayr, in Wytsman, Gen. Av., Part 18, p. 38, 1911—Marin County.

*Penthestes rufescens neglectus* Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 418, 1904—Marin County (monog., full bibliog.).

*Range*.—Coast of middle California in the Humid Transition zone of Marin County.

9: California (Nicasio, 8; San Geronimo, 1).

**\**Parus rufescens barlowi* Grinnell. BARLOW'S CHICKADEE.**

*Parus rufescens barlowi* Grinnell, Condor, 2, p. 127, 1900—Stevens' Creek Canyon, Santa Clara County, California (type in coll. J. Grinnell, now in Museum of Vertebrate Zoology, Berkeley); idem, Auk, 21, pp. 380, 382, 1914 (range, bibliog.); Hellmayr, in Wytsman, Gen. Av., Part 18, p. 38, 1911—coast of middle California, from San Francisco Bay to past Monterey.

*Penthestes rufescens barlowi* Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 418, 1904—middle coast district of California (monog., full bibliog.).

*Range*.—Coast of middle California in the Transition zone, from San Francisco Bay to a little south of Monterey Bay.

7: California (La Honda, 1; Palo Alto, 1; Monterey, 5).

**\*Parus bicolor Linnaeus. TUFTED TITMOUSE.**

*Parus bicolor* Linnaeus, Syst. Nat., 12th ed., 1, p. 340, 1766—based on "Crested Titmouse" Catesby, Nat. Hist. Carolina, 1, pl. 57, South Carolina; Wilson, Amer. Orn., 1, p. 137, pl. 8, fig. 5, 1808—North America (habits); Hellmayr, in Wytzman, Gen. Av., Part 18, p. 29, 1911 (range).

*Parus indicus* Sparrman, Mus. Carls., fasc. 2, pl. 50, 1787—"in India" (errore).

*Lophophanes missouriensis* Baird, Rep. Pac. R. R. Surv., 9, p. 384 (in text), 1858—western United States (type from Fort Leavenworth, Kansas, in U. S. National Museum).

*Parus (Lophophanes) bicolor floridanus* Bangs, Auk, 15, p. 181, 1898—Clear Water, Hillsboro County, Florida (type in coll. Bangs, now in Museum of Comparative Zoology, Cambridge, Mass.; cf. Bangs, Bull. Mus. Comp. Zool., 70, p. 349, 1930).<sup>1</sup>

*Baeolophus bicolor* Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 381, 1904—eastern United States (monog., full bibliog.).

**Range.**—Eastern United States, from Nebraska, Iowa, Illinois, Indiana, Ohio, southern Pennsylvania, and New Jersey south to central Texas, the Gulf coast, and southern Florida; casual in southern Wisconsin, Michigan, Ontario, New York, Maine, and Connecticut.

66: New Jersey (Princeton, 2); Ohio (Columbus, 2); Indiana (Denver, 1; Salamonia, 1); Illinois (Grand Chain, 18; Farina, 1; Henry, 2; Warsaw, 1; Mound City, 1; Olive Branch, 1; Cairo, 1); West Virginia (Petroleum, 2); North Carolina (Raleigh, 3; Monroe County, 1); Arkansas (Winslow, 1); Mississippi (Holly Springs, 2; Vicksburg, 3); Texas (Fort Worth, 5); Florida (Town Point, 15; Mary Esther, 3).

**\*Parus atricristatus atricristatus Cassin. BLACK-CRESTED TITMOUSE.**

*Parus atricristatus* Cassin, Proc. Acad. Nat. Sci. Phila., 5, p. 103, pl. 2, 1850—Rio Grande, Texas (type in Academy of Natural Sciences, Philadelphia).

*Baeolophus atricristatus atricristatus* Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 384, 1904—Rio Grande Valley and Mexico (monog., full bibliog.); Phillips, Auk, 28, p. 82, 1911—Tamaulipas, Mexico (Matamoros, Guaymas, Santa Leonor, San Fernando, and Rio Martinez).

*Lophophanes atricristatus* Sclater, Proc. Zool. Soc. Lond., 1865, p. 397—highlands of Vera Cruz; Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 55, 1879—Texas (Rio Grande) and Mexico (Vera Cruz).

*Parus atricristatus atricristatus* Hellmayr, in Wytzman, Gen. Av., Part 18, p. 29, 1911 (range).

<sup>1</sup> I agree with Ridgway and Bangs that the Florida form cannot be maintained, the average difference being altogether too small for recognition in nomenclature.

*Range*.—Lower Austral and Arid Tropical zones from the Rio Grande Valley, Texas, south through Coahuila, Nuevo Leon, and Tamaulipas to San Luis Potosi and Vera Cruz, Mexico.

17: Texas (Medina County, 1; Lomita Ranch, 1; Laredo, 1; Brownsville, 3; Waring, 1; Harlingen, 2; Crystal City, 2; Kerrville, 3; Ingram, 2); Mexico (Sabinas, Coahuila, 1).

***Parus atricristatus sennetti* (Ridgway). SENNETT'S TITMOUSE.**

*Baeolophus atricristatus sennetti* Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 386, 1904—Leon Springs, Bexar County, Texas (type in U. S. National Museum).

*Parus atricristatus sennetti* Hellmayr, in Wytzman, Gen. Av., Part 18, p. 29, 1911—central Texas.

*Lophophanes atricristatus* (not *Parus atricristatus* Cassin, 1850), Cassin, Illust. Bds. Calif., Tex., etc., pl. 3, 1853.

*Range*.—Central Texas, from Tom Green and Concho counties east to the Brazos River, and from Young County south to Nueces and Bee counties.<sup>1</sup>

***Parus inornatus sequestratus* (Grinnell and Swarth).<sup>2</sup> OREGON TITMOUSE.**

*Baeolophus inornatus sequestratus* Grinnell and Swarth, Univ. Calif. Pub. Zool., 30, p. 166, 1926—Eagle Point, Jackson County, Oregon (type in Museum of Vertebrate Zoology, Berkeley).

*Baeolophus inornatus* (not *Parus inornatus* Gambel) Henninger, Auk, 37, p. 594, 1920—Ashland, Oregon.

*Range*.—Southern Oregon (Jackson County) and extreme northern California (Siskiyou County, between the Coast and Cascade ranges).

**\**Parus inornatus inornatus* Gambel. PLAIN TITMOUSE.**

*Parus inornatus* Gambel, Proc. Acad. Nat. Sci. Phila., 2, p. 265, 1845—"Upper California" (type in U. S. National Museum); idem, l.c., 3, p. 154, 1847—stated to be from near Monterey, California; idem, Journ. Acad. Nat. Sci. Phila., (2), 1, pl. 8, fig. 2, 1847.

<sup>1</sup> Hybrids between this form and *P. bicolor* have been described by Sennett (Auk, 4, pp. 28, 29, 1887) from Bee County, Texas, under the names of *Parus atricristatus castaneifrons* and *Parus bicolor texensis*, the types being now in the American Museum of Natural History, New York. The case has been fully discussed by Ridgway (Bull. U. S. Nat. Mus., 50, Part 3, pp. 386-387, 1904) and Allen (Bull. Amer. Mus. N. H., 23, pp. 467-481, 1907).

<sup>2</sup> *Parus inornatus sequestratus* (Grinnell and Swarth): Nearest to *P. i. inornatus*, but slightly smaller and grayer, more lead-color throughout, with, however, a trace of brownish on the upper parts; lower surface less purely white, more suffused with gray; similar also to *P. i. ridgwayi*, but smaller, especially with shorter tail, and darker, less ashy, coloration; not unlike *P. i. murinus*, but bill much smaller and coloration not quite so deeply leaden, especially as to wings and tail. Wing (males), 66-70; tail, 56-58½; bill, 10.



*Baeolophus inornatus restrictus* Ridgway, Proc. Biol. Soc. Wash., 16, p. 109, 1903—Oakland, California (type in U. S. National Museum); idem, Bull. U. S. Nat. Mus., 50, Part 3, p. 389, 1904—San Francisco Bay district (bibliog.); Grinnell, Auk, 23, pp. 186–188, 1906 (crit.;=*inornatus*).

*Baeolophus inornatus inornatus* Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 387, 1904—part, California, except southern districts (monog., full bibliog.); Grinnell, Condor, 25, pp. 136, 137, 1923 (range).

**Range.**—Northern and central California from Mendocino and Shasta counties to Kern and San Luis Obispo counties.

16: California (Oakland, 3; Haywards, 1; Berkeley, 1; Nicasio, 2; Menlo Park, 2; Gotati, Sonoma County, 1; Palo Alto, 3; Los Gatos, 1; San José, 1; Santa Rosa, 1).

**\**Parus inornatus transpositus* (Grinnell).<sup>1</sup> SAN DIEGO  
TITMOUSE.**

*Baeolophus inornatus transpositus* Grinnell, Condor, 30, p. 154, 1928—Mount Wilson, Los Angeles County, California (type in Museum of Vertebrate Zoology, Berkeley).

*Baeolophus inornatus inornatus* (not *Parus inornatus* Gambel) Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 387, 1904—part, Santa Barbara and Los Angeles counties, California.

*Baeolophus inornatus murinus* (not of Ridgway, 1903) Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 389, 1904—part, southern California; Oberholser, Auk, 34, p. 322, 1917—part, southern California (crit.); Grinnell, Condor, 25, p. 136, 1923—part, southern California.

*Parus inornatus murinus* Hellmayr, in Wytzman, Gen. Av., Part 18, p. 29, 1911—part, southern California.

**Range.**—Southwestern California, from Santa Barbara County to San Diego County.

1: California (Santa Isabel, San Diego County, 1).

***Parus inornatus murinus* (Ridgway). SAN PEDRO TITMOUSE.**

*Baeolophus inornatus murinus* Ridgway, Proc. Biol. Soc. Wash., 16, p. 109, 1903—Nachogero Valley, Lower California (type in U. S. National Museum); idem, Bull. U. S. Nat. Mus., 50, Part 3, p. 389, 1904—part, Lower California; Oberholser, Auk, 34, p. 322, 1917—part, northern Lower California (crit.); Grinnell, Univ. Calif. Pub. Zool., 32, p. 221, 1928—Lower California, from the vicinity of the United States boundary south to near latitude 30°.

*Parus inornatus murinus* Hellmayr, in Wytzman, Gen. Av., Part 18, p. 29, 1911—part, Lower California.

<sup>1</sup> *Parus inornatus transpositus* (Grinnell): Nearest to *P. i. inornatus*, but slightly grayer and larger with much heavier bill; similar also to *P. i. murinus*, but browner, less leaden gray, bill and feet less blackish, wings and tail brownish rather than plumbeous.

*Baeolophus inornatus affabilis* Grinnell and Swarth, Univ. Calif. Pub. Zool., 30, p. 164, 1926—Concepción, Sierra San Pedro Mártir, Lower California (type in Museum of Vertebrate Zoology, Berkeley).

*Parus inornatus griseus* (not *Parus griseus* Gmelin, 1789) Bryant, Proc. Calif. Acad. Sci., (2), 2, p. 317, 1889—Sierra San Pedro Mártir; Anthony, Zoe, 4, p. 246, 1893—San Pedro Mártir Mountains.

*Range*.—Upper Austral zone of northwestern Lower California, from the United States boundary south to latitude 30°.

**\*Parus inornatus cineraceus (Ridgway). ASHY TITMOUSE.**

*Lophophanes inornatus cineraceus* Ridgway, Proc. U. S. Nat. Mus., 6, p. 154, 1883—Laguna, Lower California (type in U. S. National Museum); idem, l.c., p. 347, 1883—Victoria Mountains.

*Parus inornatus cineraceus* Brewster, Bull. Mus. Comp. Zool., 41, p. 204, 1902—Sierra de la Laguna (crit.); Hellmayr, in Wytsman, Gen. Av., Part 18, p. 29, 1911—Cape St. Lucas district.

*Baeolophus inornatus cineraceus* Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 391, 1904—Cape St. Lucas district (monog., bibliog.); Grinnell, Univ. Calif. Pub. Zool., 32, p. 223, 1928—Cape region of Lower California.

*Range*.—Upper Austral zone of the Cape region of Lower California.

6: Lower California (Laguna Valley, 4; Sierra de la Laguna, 2).

**\*Parus inornatus ridgwayi Richmond. GRAY TITMOUSE.**

*Lophophanes inornatus griseus* (not *Parus griseus* Gmelin, 1789) Ridgway, Proc. U. S. Nat. Mus., 5, p. 344, 1882—Nevada, Utah, and Colorado to New Mexico (type from Iron City, Utah, in U. S. National Museum).

*Parus inornatus ridgwayi* Richmond, Proc. Biol. Soc. Wash., 15, p. 155, 1902—new name for *Lophophanes inornatus griseus* Ridgway; Hellmayr, in Wytsman, Gen. Av., Part 18, p. 29, 1911 (range).

*Baeolophus inornatus griseus* Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 390, 1904—mountains of interior of western United States (monog., full bibliog.).

*Range*.—Upper Austral zone of the mountains of the western United States, from northeastern California, Nevada, southern Idaho, Utah, southwestern Wyoming, and Colorado to southeastern California, southern Arizona, southeastern New Mexico, and western Texas (Guadalupe Mountains).<sup>1</sup>

9: California (Battle Creek, 1; Clipper Gap, 5); Arizona (Paradise, 2; Chiricahua Mountains, 1).

<sup>1</sup> Oberholser (Sci. Pub. Cleveland Mus. N. H., 4, p. 7, 1932) has lately separated *Baeolophus inornatus zaleptus* from the Warner Mountains, Oregon.

**\*Parus wollweberi wollweberi (Bonaparte). WOLLWEBER'S  
TITMOUSE.**

*Lophophanes wollweberi* Bonaparte, Compt. Rend. Acad. Sci. Paris, 31, p. 478, Sept., 1850—Zacatecas, Mexico (type in Darmstadt Museum); Sclater, Proc. Zool. Soc. Lond., 26, p. 299, 1858—La Parada, Oaxaca; idem, l.c., 27, p. 373, 1859—Talea, Oaxaca; idem, Cat. Coll. Amer. Bds., p. 14, 1862—Talea; Baird, Rev. Amer. Bds., 1, p. 79, 1864—part, Mexico; Sumichrast, Mem. Bost. Soc. N. H., 1, p. 544, 1869—mountains of San Diego and valley of Orizaba, Vera Cruz; Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 56, 1879—part, Mexico (La Parada, Talea, mountains of San Diego, Orizaba, Tierra Fria).

*Lophophanes galeatus* Cabanis, Mus. Hein., 1, p. 90 (footnote), 1851—Mexico (type in Berlin Museum).

*Parus (Lophophanes) wollweberi* Westermann, Bijdr. Dierk., 1, No. 3, p. 15, pl., fig. 1, 1851—Mexico (from one of the original examples in the Darmstadt Museum); Hellmayr, Tierreich, Lief. 18, p. 46, 1903—part, Mexico.

*Parus wollweberi* Ferrari-Perez and Ridgway, Proc. U. S. Nat. Mus., 9, p. 135, 1886—Chachapa, Puebla (crit.).

*Baeolophus wollweberi wollweberi* Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 392, 1904—highlands of Mexico (monog., full bibliog.); Phillips, Auk, 28, p. 82, 1911—Rampahuila, Yerba Buena, Carricitos, Montelunga, Galindo, Guiaves, and Portrero, Tamaulipas; Oberholser, Auk, 34, p. 324, 1917 (range).

*Parus wollweberi wollweberi* Hellmayr, in Wytzman, Gen. Av., Part 18, p. 28, 1911 (range).

**Range.**—Mountains of eastern and southern Mexico, in states of Tamaulipas, Zacatecas, Aguas Calientes, Jalisco, Puebla, Vera Cruz, and Oaxaca.<sup>1</sup>

3: Mexico (Sierra Bolaños, Jalisco, 1; Sierra de Calvillo, Aguas Calientes, 1; Omilteme, Oaxaca, 1).

**\*Parus wollweberi annexus Cassin. BRIDLED TITMOUSE.**

*Parus annexus* Cassin, Proc. Acad. Nat. Sci. Phila., 5, p. 103, pl. 1, Dec., 1850—"Texas, upon the Rio Grande," errore, probably southern Arizona (type in Academy of Natural Sciences, Philadelphia).

*Lophophanes wollweberi* (not of Bonaparte) Baird, Rep. Pac. R. R. Surv., 9, p. 386, 1858—part, New Mexico (crit.); idem, Rev. Amer. Bds., 1, p. 79, 1864—part, New Mexico (Copper Mines, Fort Thorn, Pueblo Creek); Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 56, 1879—part, Arizona, New Mexico, and "western Texas"; Brewster, Bull. Nutt. Orn. Cl., 7, p. 79, 1882—Chiricahua and Santa Rita Mountains, Arizona; Scott, Auk, 3, p. 84, 1886—Arizona (breeding habits, nest, and eggs).

*Parus wollweberi* Scott, Auk, 5, p. 166, 1888—Pinal and Santa Catalina Mountains, Arizona; Allen, Bull. Amer. Mus. N. H., 5, p. 41, 1893—

<sup>1</sup> Specimens from Huasamota, Durango, according to Oberholser (l.c., p. 323), are intermediate between *wollweberi* and *annexus*.

Puerto de los Pinitos and Napolera, Sonora; Jouy, Proc. U. S. Nat. Mus., 16, p. 776, 1893—south of Nogales, Sonora; Hellmayr, in Wytzman, Gen. Av., Part 18, p. 46, 1903—part, Arizona, New Mexico, "Texas."

*Baeolophus wollweberi annexus* Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 393, 1904—mountains of Arizona, New Mexico, Sonora, and Chihuahua (monog., full bibliog.); Miller, Bull. Amer. Mus. N. H., 22, p. 182, 1906—Matalotes, Cienaga de las Vacas, and Arroyo del Buey, northwestern Durango (crit.); Oberholser, Auk, 34, p. 323, 1917—northwestern Mexico and southwestern United States (range, crit.); idem, Sci. Pub. Cleveland Mus. Nat. Hist., 1, p. 93, 1930—Huachuca Mountains, Arizona; van Rossem, Trans. San Diego Soc. N. H., 6, p. 271, 1931—Sarıc and fifteen miles southwest of Nogales, Sonora.

*Parus wollweberi annexus* Hellmayr, in Wytzman, Gen. Av., Part 18, p. 28, 1911 (range).

**Range.**—Mountains of southwestern New Mexico, southern Arizona, Sonora, Chihuahua, and northwestern Durango.

22: Arizona (Huachuca Mountains, 10; Santa Rita Mountains, 3; Cave Creek, Cochise County, 1); New Mexico (Grant County, 1); Mexico, Chihuahua (thirty miles west of Miñaca, 3; Bastillos, 3); Sonora (Providencia Mines, 1).

### Subfamily REMIZINAE. Verdins

#### Genus AURIPARUS Baird

*Auriparus* Baird, Rev. Amer. Bds., 1, p. 85, 1864—type, by orig. desig., *Aegithalus flaviceps* Sundevall.

#### \**Auriparus flaviceps flaviceps* (Sundevall). CAPE VERDIN.

*Aegithalus flaviceps* Sundevall, Oefv. Vet. Akad. Förh., 7, p. 129, note, 1850—"Sitka vel California"—vicinity of Loreto, latitude 26°, Lower California (type in Helsingfors Museum; cf. Grinnell, Condor, 33, pp. 163-168, 1931).

*Auriceps flaviceps lamprocephalus* Oberholser, Auk, 14, p. 391, 1897—Cape San Lucas, Lower California (type in U. S. National Museum); Brewster, Bull. Mus. Comp. Zool., 41, p. 206, 1902—Cape district; Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 422, 1904—part, San Lucas district of Lower California (monog.); Hellmayr, in Wytzman, Gen. Av., Part 18, p. 64, 1911—part, Lower California; McLellan, Proc. Calif. Acad. Sci., (4), 16, p. 317, 1926—Magdalena Bay and Cape San Lucas; Grinnell, Univ. Calif. Pub. Zool., 32, p. 224, 1928—Lower California, from the cape north to about 30° latitude; van Rossem, Trans. San Diego Soc. N. H., 6, p. 202, 1930—Lower California north to 30° latitude (crit.).

*Auriparus flaviceps ignatius* Huey, Trans. San Diego Soc. N. H., 6, p. 211, 1930—San Ignacio, Lower California (type in collection of San Diego Society of Natural History).

*Range*.—Lower California, from the Cape region north to about 30° latitude.<sup>1</sup>

3: Lower California (San José del Cabo, 2; Santa Anita, 1).

***Auriparus flaviceps fraterculus* van Rossem.<sup>2</sup> SONORA VERDIN.**

*Auriparus flaviceps fraterculus* van Rossem, Trans. San Diego Soc. N. H., 6, p. 201, 1930—Chinobampo, southern Sonora (type in collection of Donald R. Dickey, Pasadena); idem, l.c., 6, p. 272, 1931—Tecoripa, San Javier, Tésia, Chinobampo, San Estéban and Tiburón Islands, Obregón, Guaymas, and Tobári Bay, Sonora.

*Auriparus flaviceps lamprocephalus* (not of Oberholser) Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 422, 1904—part, Sonora (Guaymas, Alamos, etc.).

*Range*.—Arid Tropical zone in central and southern Sonora, north to San Estéban and Tiburón Islands on the coast and to San Javier and Tecoripa in the interior.

**\**Auriparus flaviceps acaciарum* Grinnell.<sup>3</sup> CALIFORNIA VERDIN.**

*Auriparus flaviceps acaciарum* Grinnell, Condor, 33, p. 168, 1931—Palm Springs, Riverside County, California (type in Museum of Vertebrate Zoology, Berkeley).

*Auriparus flaviceps flaviceps* (not *Aegithalus flaviceps* Sundevall) Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 420, 1904—part, California, northern Lower California, etc. (monog.); Grinnell, Univ. Calif. Pub. Zool., 32, p. 224, 1928—northern Lower California; van Rossem, Trans. San Diego Soc. N. H., 6, p. 200, 1930 (range, crit.); idem, l.c., p. 271, 1931—El Doctor and San Felix Mine, Sonora.

*Range*.—Lower Sonoran deserts of the Colorado River drainage north to Inyo County, California, south to about 31° latitude in Lower California and extreme northwestern Sonora; southern Nevada and southwestern Utah.

<sup>1</sup> Dr. Grinnell, through examination of the type, has ascertained that *A. flaviceps* refers to the form long known as *A. f. lamprocephalus*. His careful investigation, furthermore, brought to light that Sundevall's original example was obtained by the Russian collector Vosnoisensky in the vicinity of Loreto, 26° latitude, hence not far from San Ignacio, the type locality of *A. f. ignatus*.

<sup>2</sup> *Auriparus flaviceps fraterculus* van Rossem: Decidedly smaller and yellow of head, very much brighter (more orange), and more extensively yellow than either *A. f. acaciарum* or *A. f. ornatus*; in both of these respects very similar to *A. f. flaviceps*, although averaging more olivaceous (less grayish) on wings and upper parts and less brilliantly yellow on the head than that form. Juveniles very different from those of *flaviceps*; darker than, but closely resembling, the grayish juveniles of *acaciарum* and *ornatus*, and not at all like the grayish "olive yellow" young of *flaviceps*. Wing (male), 49; tail, 43; bill, 9 (van Rossem, l.c.).

<sup>3</sup> *Auriparus flaviceps acaciарum* Grinnell: Similar to *A. f. flaviceps*, but with yellow on foreparts somewhat less intense and extensive; body plumage slightly more brownish; tail and wings on average a little longer; bill smaller. Similar to *A. f. ornatus*, but paler and slightly smaller.

2: California (Mecca, Riverside County, 1; La Puerta Valley, San Diego County, 1).

**\*Auriparus flaviceps ornatus (Lawrence).<sup>1</sup> ARIZONA VERDIN.**

*Conirostrum ornatum* Lawrence, Ann. Lyc. Nat. Hist. N. Y., 5, p. 112, pl. 5, fig. 1, 1852—Rio Grande, Texas (type in coll. G. N. Lawrence, now in the American Museum of Natural History, New York).

*Auriparus flaviceps flaviceps* (not *Aegithalus flaviceps* Sundevall) Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 420, 1904—part, Texas, New Mexico, Arizona, and Mexican states (monog.); Miller, Bull. Amer. Mus. N. H., 22, p. 182, 1906—El Rancho Baillon, Durango; Phillips, Auk, 28, p. 82, 1911—Matamoros, Tamaulipas.

*Auriparus flaviceps ornatus* van Rossem, Trans. San Diego Soc. N. H., 6, p. 201, 1930—from the lower Rio Grande, Texas, west to Tucson, Arizona, and Saric, north-central Sonora, south to Mexico (crit.); idem, l.c., p. 271, 1931—Saric and Pesqueira, Sonora.

**Range.**—Texas (north to Refugio and Bexar counties), south-eastern Arizona, and southern New Mexico, south through northern Mexico, in states of Sonora (except western section), Durango, Chihuahua, Coahuila, Nuevo Leon, and Tamaulipas.

26: Arizona (Fort Mohave, 1; Calabasas, 6; Tucson, 1; Phoenix, 3); New Mexico (Members, 1; Deming, 4); Texas (Laredo, 3; Brownsville, 2; Crystal City, 1; Harlingen, 2); Mexico, Coahuila (Jalal, 1); Tamaulipas (Nuevo Laredo, 1).

Subfamily PSALTRIPARINAE. Bush-tits

Genus PSALTRIPARUS Bonaparte

*Psaltiriparus* Bonaparte, Compt. Rend. Acad. Sci. Paris, 31, p. 478, Sept., 1850—type, by monotypy, *Psaltiriparus personatus* Bonaparte=*Parus melanotis* Hartlaub.

*Psaltrites* Cabanis, Journ. Orn., 29, p. 333 (in text), 1881—new name for *Psaltiriparus* Bonaparte.

**\*Psaltiriparus minimus minimus (Townsend). COAST BUSH-TIT.**

*Parus minimus* Townsend, Journ. Acad. Nat. Sci. Phila., 7, p. 190, 1837—forests of Columbia River, probably near Fort Vancouver, Washington (type apparently lost; cf. Stone, Proc. Acad. Nat. Sci. Phila., 1899, p. 16).

*Psaltiriparus minimus saturatus* Ridgway, Proc. Biol. Soc. Wash., 16, p. 109, 1903—Mount Vernon, Washington (type in U. S. National Museum); idem, Bull. U. S. Nat. Mus., 50, Part 3, p. 434, 1904—vicinity of Puget Sound (monog., full bibliog.); Hellmayr, in Wytsman, Gen. Av., Part 18, p. 55, 1911—Puget Sound region.

<sup>1</sup> *Auriparus flaviceps ornatus* (Lawrence) is the largest and darkest of all the races, the coloration of the back varying from deep grayish olive to dark grayish olive, while the yellow of the head averages slightly darker than in *A. f. acaciæ*.

*Psaltriparus minimus minimus* Oberholser, Auk, 20, p. 200—Pacific coast from San Francisco Bay, California, to Washington (crit.); Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 432, 1904—part, Oregon and California (monog., full bibliog.); Swarth, Auk, 31, pp. 506, 510, 1914—part (range, except Lower California; crit.).

*Aegithalos minimus minimus* Hellmayr, Tierreich, Lief. 18, p. 112, 1903—California to Washington (monog.).

*Range*.—Transition and Upper Austral zones along the Pacific coast from extreme southwestern British Columbia south to the Mexican border in San Diego County, California.

34: Oregon (Corvallis, 1); California (Miller, Mendocino County, 1; Nicasio, 7; Fairfax, Marin County, 1; Oakland, 2; Menlo Park, 1; Haywards, Alameda County, 2; Portola, San Mateo County, 1; Palo Alto, 3; Los Gatos, Santa Clara County, 4; Monterey, 6; Pasadena, 1; Cresenta Cañada, Los Angeles County, 1; Claremont, Los Angeles County, 1; Los Angeles County, 1; Lakeside, San Diego County, 1).

**\**Psaltriparus minimus californicus* Ridgway. CALIFORNIA BUSH-TIT.**

*Psaltriparus minimus californicus* Ridgway, Proc. Biol. Soc. Wash., 2, p. 89, 1884—Baird (Shasta County), Fort Tejon, and Walker's Basin, California (restricted type from Baird in U. S. National Museum); Oberholser, Auk, 20, p. 201, 1903—part, excl. Lower California (crit.); Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 435, 1904—interior of Oregon and California (monog., full bibliog.); Hellmayr, in Wytsman, Gen. Av., Part 18, p. 55, 1911—same range; Swarth, Auk, 31, pp. 507, 516, 1914—interior of California (monog., crit., range).

*Aegithalos minimus californicus* Hellmayr, Tierreich, Lief. 18, p. 112, 1903—California (diag.).

*Range*.—Transition and Upper Austral zones of Jackson County, Oregon, and interior California from Modoc and Siskiyou counties to Kern County (as far south as Piute Mountains).

4: California (Clipper Gap, Placer County, 2; Nevada City, 2).

***Psaltriparus minimus melanurus* Grinnell and Swarth.<sup>1</sup> BLACK-TAILED BUSH-TIT.**

*Psaltriparus minimus melanurus* Grinnell and Swarth, Univ. Calif. Pub. Zool., 30, p. 169, 1926—San José, Lower California (type in Museum of Vertebrate Zoology, Berkeley); Grinnell, l.c., 32, p. 223, 1928—northern Lower California (range, bibliog.).

<sup>1</sup> *Psaltriparus minimus melanurus* Grinnell and Swarth: Nearest to *P. m. minimus*, but of darker, more plumbeous general coloration, wings and tail being blackish rather than dark hair brown.

*Psaltriparus minimus californicus* (not of Ridgway) Oberholser, Auk, 20, p. 201, 1903—part, northern Lower California.

*Psaltriparus minimus minimus* Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 435, 1904—part, Lower California (San Fernando and San Pedro Mártir Mountains).

*Range*.—Upper Austral zone of northern Lower California, from the United States boundary south to 30° latitude.

**\**Psaltriparus minimus grindae* Ridgway. GRINDA'S BUSH-TIT.**

*Psaltriparus grindae* (Belding MS.) Ridgway, Proc. U. S. Nat. Mus., 6, p. 155, 1883—Laguna, Lower California (type in U. S. National Museum); idem, Proc. Biol. Soc. Wash., 2, p. 96, 1884 (crit.); Belding, Proc. U. S. Nat. Mus., 6, p. 347, 1883—Victoria Mountains (habits); Bryant, Proc. Calif. Acad. Sci., (2), 2, p. 317, 1889—San Francisco Mountains and San Francisco Ranch; Brewster, Bull. Mus. Comp. Zool., 41, p. 205, 1902—Sierra de la Laguna (crit., nest descr.); Oberholser, Auk, 20, p. 201, 1903—southern part of Lower California; Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 436, 1904—Cape San Lucas district (monog.).

*Psaltriparus minimus grindae* Hellmayr, in Wytzman, Gen. Av., Part 18, p. 55, 1911—Cape San Lucas district; Grinnell, Univ. Calif. Pub. Zool., 32, p. 224, 1928—Cape district (bibliog.).

*Aegithalos minimus grindae* Hellmayr, Tierreich, Lief. 18, p. 113, 1903—southern part of Lower California (diag.).

*Range*.—Mountains of the Cape district of Lower California, in the Upper Austral zone.

3: Lower California (Sierra de la Laguna, 3).

**\**Psaltriparus minimus plumbeus* (Baird). LEAD-COLORED BUSH-TIT.**

*Psaltria plumbea* Baird, Proc. Acad. Nat. Sci. Phila., 7, p. 118, 1854—Little Colorado River, Arizona (type in U. S. National Museum).

*Psaltriparus plumbeus* Baird, Bds. N. Amer., p. 398, pl. 33, fig. 2, 1860—New Mexico; Oberholser, Auk, 19, p. 301, 1902—high mountains of southwestern Texas; idem, l.c., 20, p. 200, 1903 (range); Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 430, 1904 (monog., full bibliog.); Swarth, Auk, 31, pp. 507, 520, 1914—California (monog., descr.).

*Psaltriparus santaritae* Ridgway, Proc. U. S. Nat. Mus., 10, p. 697, Oct., 1888—Santa Rita Mountains, southern Arizona (type in U. S. National Museum); Swarth, Auk, 30, p. 399, 1913—Arizona (crit.;=juv.).

*Psaltriparus plumbeus plumbeus* Hellmayr, in Wytzman, Gen. Av., Part 18, p. 55, 1911 (range); Oberholser, Sci. Pub. Cleveland Mus. N. H., 1, p. 94, 1930—Huachuca Mountains, Arizona (crit.).

*Range*.—Transition and Upper Austral zones from eastern Oregon and western Wyoming south to Arizona, New Mexico, and western Texas, and from eastern California to central Colorado.



12: Arizona (Whipple Barracks, 1; Chiricahua Mountains, 2; Huachuca Mountains, 5; Santa Rita Mountains, 1); Texas (Fort Davis, 1; Davis Mountains, 2).

***Psaltiriparus minimus cecaumenorum* Thayer and Bangs.<sup>1</sup>**  
SONORA BUSH-TIT.

*Psaltiriparus plumbeus cecaumenorum* Thayer and Bangs, Proc. Biol. Soc. Wash., 19, p. 20, 1906—La Chumata Mine, north-central Sonora (type in coll. Bangs, now in Museum of Comparative Zoology, Cambridge, Mass.; cf. Bangs, Bull. Mus. Comp. Zool., 70, p. 352, 1930); Hellmayr, in Wytsman, Gen. Av., Part 18, p. 55, 1911—Sierra de Antonez.

*Range*.—Northwestern Mexico, in State of Sonora (Sierra de Antonez).

***Psaltiriparus minimus lloydi* Sennett.<sup>2</sup> LLOYD'S BUSH-TIT.**

*Psaltiriparus lloydi* Sennett, Auk, 5, p. 43, 1888—Limpia Canyon, near Fort Davis, Presidio County, Texas (type in coll. Geo. B. Sennett, now in the American Museum of Natural History, New York); Allen, Bull. Amer. Mus. N. H., 5, p. 41, 1893—Bavispe River, northeastern Sonora.

*Psaltiriparus melanotis lloydi* Oberholser, Auk, 19, p. 301, 1902—Chisos and Davis Mountains and Ord Mountains, south of Alpine, Texas; idem, l.c., 20, p. 199, 1903—part, Texas, New Mexico, and northern Mexico (crit.); Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 429, 1904—part, Texas, New Mexico, northern Sonora, and Chihuahua (monog., full bibliog.); Hellmayr, in Wytsman, Gen. Av., Part 18, p. 54, 1911—part, excl. Arizona.

*Aegithalos lloydi* Hellmayr, Tierreich, Lief. 18, p. 112, 1903—western Texas.

*Range*.—Mountains of the southeastern desert region, mainly in the Upper Austral zone, from southern New Mexico and central-western Texas (mountains between Pecos River and Rio Grande) south into northeastern Sonora and northern Chihuahua.

**\**Psaltiriparus minimus iulus* Jouy. JOUY'S BUSH-TIT.**

*Psaltiriparus melanotis iulus* Jouy, Proc. U. S. Nat. Mus., 16, p. 776, 1893—Hacienda El Molino, Jalisco, Mexico (type in U. S. National Museum); Oberholser, Auk, 20, p. 199, 1903—Jalisco (crit.); Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 428, 1904—western and central Mexico (monog.); Hellmayr, in Wytsman, Gen. Av., Part 18, p. 54, 1911 (range).

*Aegithalos melanotis iulus* Hellmayr, Tierreich, Lief. 18, p. 111, 1903—Sierra Madre from Jalisco to Chihuahua (diag.).

<sup>1</sup> *Psaltiriparus minimus cecaumenorum* Thayer and Bangs: "Slightly smaller than *P. m. plumbeus*; upper parts blue gray instead of olive gray; whole head and under parts much paler. Wing, (male)  $47\frac{1}{2}$ – $50\frac{1}{2}$ , (female) 48–49; tail, 49–52½; bill, 6–7." (Thayer and Bangs, l.c.).

<sup>2</sup> We are not acquainted with this form. Its relationships to *P. m. cecaumenorum* and *P. m. plumbeus* are not clear and need thorough investigation, inasmuch as the ranges of the three races approach each other very closely, if they do not actually overlap.

(?) *Psaltiriparus melanotis lloydi* (not of Sennett) Miller, Bull. Amer. Mus. N. H., 22, p. 182, 1906—Cienaga de las Vacas, northwestern Durango.

*Range*.—Western and central Mexico, in states of Jalisco, Zacatecas, San Luis Potosi, Nayarit, Chihuahua, and (?) Durango (Cienaga de las Vacas).

18: Chihuahua (Bastillos, 10; thirty miles west of Miñaca, 8).<sup>1</sup>

**\**Psaltiriparus minimus melanotis* (Hartlaub). BLACK-EARED BUSH-TIT.**

*Parus melanotus* Sandbach, Rep. Brit. Ass., 6, "1837," Not., p. 99, 1838—Mexico (nomen nudum).

*Parus melanotis* Hartlaub, Rev. Zool., 7, p. 216, 1844—"Mexico, Guatemala" (type from Guatemala in Bremen Museum).

*Psaltiriparus personatus* Bonaparte, Compt. Rend. Acad. Sci. Paris, 31, p. 478, Sept., 1850—"les hautes montagnes du Mexique méridional" (location of type not stated).

*Psaltirites helviventris* Cabanis, Journ. Orn., 29, p. 333, 1881—western Mexico, Tehuantepec (?) (type in Berlin Museum examined;=female).

*Psaltria melanotis* Westermann, Bijdr. Dierk., 1, No. 3, p. 16, pl., figs. 2, 3 (male, female), 1851—mountains of Mexico.

*Psaltiriparus melanotis* Sclater, Proc. Zool. Soc. Lond., 26, p. 299, 1858—La Parada, Oaxaca; idem, l.c., 1864, p. 172—vicinity of the city of Mexico; Salvin, Ibis, 1866, p. 190—Sololá and above Lake Atitlan, Guatemala; Sumichrast, Mem. Bost. Soc. N. H., 1, p. 544, 1869—mountains of San Diego, Vera Cruz; Ferrari-Perez and Ridgway, Proc. U. S. Nat. Mus., 9, p. 134, 1886—Teziutlan, Puebla (descr. female); Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 58, 1880—Mexico and Guatemala (Sololá, Godines, Volcan de Fuego, San Lucas); Chapman, Bull. Amer. Mus. N. H., 10, p. 38, 1898—Las Vigas, Vera Cruz (nest descr.); Dearborn, Field Mus. Nat. Hist., Orn. Ser., 1, p. 134, 1907—between Lake Atitlan and Tecpam, Guatemala.

*Psaltiriparus melanotis melanotis* Oberholser, Auk, 20, p. 199, 1903—southern Mexico and Guatemala (crit.); Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 426, 1904—southern Mexico and Guatemala (monog., full bibliog.); Hellmayr, in Wytzman, Gen. Av., Part 18, p. 54, 1911 (range).

*Aegithalos melanotis melanotis* Hellmayr, Tierreich, Lief. 18, p. 111, 1903—southern Mexico and Guatemala (diag.).

*Range*.—Southern Mexico, in states of Guanajuato, Hidalgo, Mexico, Puebla, Vera Cruz, Michoacan, Oaxaca, and Chiapas, and highlands of Guatemala.

4: Guatemala (Lake Atitlan, 1; near Tecpam, 3).

<sup>1</sup> In the absence of topotypical material and being unfamiliar with *P. m. lloydi*, I am not certain that this series really represents *P. m. iulus*, which was originally based upon a specimen from Jalisco. Judging from published descriptions, the Chihuahua birds would seem to be somewhat intermediate between *iulus* and *lloydi*, thus resembling the San Luis Potosi example alluded to by Ridgway.

## Family SITTIDAE. Nuthatches

## Subfamily SITTINAE

## Genus SITTA Linnaeus

*Sitta* Linnaeus, Syst. Nat., 10th ed., 1, p. 115, 1758—type, by monotypy,

*Sitta europaea* Linnaeus.

*Sittella* Rafinesque, Analyse Nat., p. 68, 1815—new name for *Sitta* Linnaeus.

**\**Sitta carolinensis carolinensis* Latham. WHITE-BREASTED NUTHATCH.**

*Sitta carolinensis* Latham, Ind. Orn., 1, p. 262, 1790—based chiefly on "*Sitta carolinensis*" Brisson (Orn., 3, p. 596); South Carolina (ex Catesby) accepted as type locality.

*Sitta melanocephala* Vieillot, Nouv. Dict. Hist. Nat., nouv. éd., 31, p. 336, 1819—new name for *Sitta carolinensis* Latham.

*Sitta atkinsi lilorea* Maynard, Records of Walks and Talks with Nature, 8, No. 1, p. 5, plate, 1916—New River, North Carolina (type now in Museum of Comparative Zoology, Cambridge, Mass.; cf. Bangs, Bull. Mus. Comp. Zool., 70, p. 353, 1930).

*Sitta carolinensis cookei* Oberholser, Auk, 34, p. 185, 1917—Washington, District of Columbia (type in collection of W. W. Cooke).

*Sitta carolinensis carolinensis* Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 441, 1904—eastern North America (monog., full bibliog.); Hellmayr, in Wytzman, Gen. Av., Part 16, p. 11, 1911—eastern United States and southeastern Canada.

**Range.**—Eastern North America, from southern Manitoba, northern Minnesota, Ontario, and southern Quebec south to northern Texas and South Carolina.<sup>1</sup>

65: Maine (Lincoln, 1); Massachusetts (Brookline, 1; Tyngsboro, 1; Grafton, 1); Connecticut (East Hartford, 12; North Hartford, 4; Shelton, 2; Fairfield, 1); New York (Auburn, 1; Peterboro, 2; Cayuga County, 1); Ohio (Columbus, 2); Indiana (Bluffton, 4); Illinois (Joliet, 1; Waukegan, 1; Grand Chain, 4; Lake Forest, 1; Henry, 1; Glen Ellyn, 1; Addison, 1; Worth, 1; Olive Branch, 1; Mound City, 1); Wisconsin (Beaver Dam, 9); Iowa (Knoxville, 8); South Carolina (Mount Pleasant, 2).

**\**Sitta carolinensis atkinsi* Scott. FLORIDA NUTHATCH.**

*Sitta carolinensis atkinsi* Scott, Auk, 7, p. 110, 1890—Tarpon Springs, Florida (type now in Museum of Comparative Zoology, Cambridge, Mass.; cf.

<sup>1</sup> The discrimination between *S. c. carolinensis* and *S. c. atkinsi* is no easy matter owing to the extensive area of intergradation existing in the southeastern states, but as a whole I am inclined to follow Bangs (Bull. Mus. Comp. Zool., 70, p. 353) rather than Oberholser in the disposition of Latham's name, this course having also been chosen by the authors of the fourth edition of the A. O. U. Check List.

Bangs, Bull. Mus. Comp. Zool., **70**, p. 352, 1930); Ridgway, Bull. U. S. Nat. Mus., **50**, Part 3, p. 444—Florida and Gulf coast to Mississippi (monog., full bibliog.); Hellmayr, in Wytsman, Gen. Av., Part 16, p. 11, 1911—Florida and Gulf coast to Mississippi.

*Sitta carolinensis carolinensis* Oberholser, Auk, **34**, p. 182, 1917—part, Gulf coast and Florida (crit.).

*Range*.—Florida, Georgia, and westward along Gulf coast to Mississippi.<sup>1</sup>

6: Florida (Rosewood, 3; Oswego County, 1); Georgia (Broro Neck, 1; McIntosh County, 1).

**\**Sitta carolinensis nelsoni* Mearns. ROCKY MOUNTAIN NUTHATCH.**

*Sitta carolinensis nelsoni* Mearns, Proc. U. S. Nat. Mus., **24**, p. 918, 1902—Huachuca Mountains, Arizona (type in U. S. National Museum); Ridgway, Bull. U. S. Nat. Mus., **50**, Part 3, p. 447, 1904—western United States, British Columbia, and northern Mexico (monog., full bibliog.); Hellmayr, in Wytsman, Gen. Av., Part 16, p. 11, 1911 (range); van Rossem, Trans. San Diego Soc. N. H., **6**, p. 272, 1931—fifteen miles south of Nogales, Sonora.

*Range*.—Transition zone from southern Alberta south to Sonora, Chihuahua, and Coahuila, and from the eastern base of the Cascades and northern Sierra Nevada eastward across the Rocky Mountains.

22: Colorado (Platte Canyon, 1; Williams Range, 2; Rocky Ford, 1); Texas (Davis Mountains, 3); Arizona (Huachuca Mountains, 8; Pinery Canyon, 1); Chihuahua (thirty miles west of Miñaca, 4; Bastillos, 2).

**\**Sitta carolinensis aculeata* Cassin. SLENDER-BILLED NUTHATCH.**

*Sitta aculeata* Cassin, Proc. Acad. Nat. Sci. Phila., **8**, No. 5, Sept.-Oct., 1856, p. 254, pub. April, 1857—California (type in Academy of Natural Sciences, Philadelphia).

*Sitta carolinensis aculeata* Ridgway, Bull. U. S. Nat. Mus., **50**, Part 3, p. 444, 1904—part, Pacific coast district from California to southern British Columbia (monog., full bibliog.); Hellmayr, in Wytsman, Gen. Av., Part 16, p. 11, 1911 (range); Grinnell, Univ. Calif. Pub. Zool., **32**, p. 219, 1928—Laguna Hansen, Sierra Juárez, northern Lower California.

*Range*.—Transition and Upper Austral zones from southern British Columbia to extreme northern Lower California and from the Pacific coast east to the Cascades and Sierra Nevada.

<sup>1</sup> The fourth edition of the A. O. U. Check List gives its range as extending north in the Mississippi Valley to Kentucky, southern Illinois, and southeastern Missouri. Specimens from southern Illinois (Olive Branch, Mound City), however, do not seem to be separable from South Carolina birds, while series from more northern localities are on average slightly paler gray above.

17: California (Redding, 1; Drytown, 1; Battle Creek, 1; Greenwood, 1; Clipper Gap, 3; Calito, 1; Calabasas, 1; Donner, 1; Big Bear Valley, San Bernardino County, 7).

***Sitta carolinensis tenuissima* Grinnell.<sup>1</sup> INYO NUTHATCH.**

*Sitta carolinensis tenuissima* Grinnell, Condor, 20, p. 88, 1918—Hanaupah Canyon, Panamint Mountains, Inyo County, California (type in Museum of Vertebrate Zoology, Berkeley).

*Range*.—Panamint and White Mountains, California.

***Sitta carolinensis alexandrae* Grinnell.<sup>2</sup> SAN PEDRO NUTHATCH.**

*Sitta carolinensis alexandrae* Grinnell, Univ. Calif. Pub. Zool., 21, p. 405, March, 1926—near Arroyo La Encantada, three miles north of La Grulla, Sierra San Pedro Mártir, Lower California (type in Museum of Vertebrate Zoology, Berkeley); idem, l.c., 32, p. 220, 1928—Sierra San Pedro Mártir, Lower California.

*Sitta carolinensis aculeata* (not of Cassin) Anthony, Zoe, 4, p. 246, 1893—San Pedro Mártir Mountains; Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 444, 1904—part, Lower California (San Pedro Mártir).

*Range*.—Pine belt of the Sierra San Pedro Mártir, Lower California.

**\**Sitta carolinensis lagunae* Brewster. SAN LUCAS NUTHATCH.**

*Sitta carolinensis lagunae* Brewster, Auk, 8, p. 149, 1891—Sierra de la Laguna, Lower California (type now in Museum of Comparative Zoology, Cambridge, Mass.; cf. Bangs, Bull. Mus. Comp. Zool., 70, p. 354, 1930); idem, Bull. Mus. Comp. Zool., 41, p. 203, 1902—Sierra de la Laguna (crit.); Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 446, 1904—Cape St. Lucas district (monog., full bibliog.); Hellmayr, in Wytzman, Gen. Av., Part 16, p. 11, 1911—Cape St. Lucas district; Grinnell, Univ. Calif. Pub. Zool., 32, p. 221, 1928—mountains of the Cape district.

*Sitta carolinensis aculeata* (not of Cassin) Belding, Proc. U. S. Nat. Mus., 6, p. 347, 1883—Victoria Mountains, Lower California.

*Range*.—Upper Sonoran zone of the Cape St. Lucas district of Lower California.

6: Lower California (Sierra de la Laguna, 2; El Sauc, 2; Laguna Valley, 2).

<sup>1</sup> *Sitta carolinensis tenuissima* Grinnell: "Similar to *S. c. aculeata*, but bill much longer and slenderer; size larger; back of a darker tone of gray, and flanks paler; similar to *S. c. nelsoni*, but bill much slenderer, and sides as well as lower surface generally whiter. Wing, (male) 87–92, (female) 85–87; tail, 45–52, (female) 43–45; bill, 20–22." (Grinnell, l.c.).

<sup>2</sup> *Sitta carolinensis alexandrae* Grinnell: Similar in general features to *S. c. aculeata*, but much larger; back slightly darker; white tippings to inner primaries more extensive; rectrices broader with a greater amount of white. Wing, 88–94½, (female) 85½–91½; tail, 48–53; bill, 20½–23, (female) 18½–21. (Grinnell, l.c.).

***Sitta carolinensis mexicana* Nelson and Palmer. MEXICAN NUTHATCH.**

*Sitta carolinensis mexicana* Nelson and Palmer, Auk, 11, p. 45, 1894—Mount Orizaba, Puebla, Mexico (type in U. S. National Museum); Cox, Auk, 12, p. 358, 1895—Mount Orizaba; Chapman, Bull. Amer. Mus. N. H., 10, p. 39, 1898—Las Vigas, Vera Cruz; Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 448, 1904—southern Mexico, north to Chihuahua and Coahuila (monog., full bibliog.); Miller, Bull. Amer. Mus. N. H., 22, p. 182, 1906—Durango (Matalotes, La Cienaga de las Vacas, Arroyo del Buey, and San Andres); Phillips, Auk, 28, p. 82, 1911—Galindo, Tamaulipas.

*Sitta carolinensis* (vel *aculeata*) Sumichrast, Mem. Bost. Soc. N. H., 1, p. 544, 1869—Moyoapam and Popocatepetl, Vera Cruz.

*Sitta aculeata* (not of Cassin) Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 60, 1880—part, Mexican localities.

**Range.**—Highlands of Mexico, from Oaxaca and Guerrero north to Coahuila, Durango, and southern Chihuahua (Colonia Garcia, Sierra Madre).

**\**Sitta canadensis canadensis* Linnaeus.<sup>1</sup> RED-BREASTED NUTHATCH.**

*Sitta canadensis* Linnaeus, Syst. Nat., 12th ed., 1, p. 177, 1766—based on "*Sitta canadensis*" Brisson, Orn., 3, p. 593, pl. 29, fig. 4, Canada (type in Réaumur Collection); Hellmayr, Tierreich, Lief. 18, p. 185, 1903—North America (monog.); Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 450, 1904—North America (monog., full bibliog.); Grinnell, Univ. Calif. Pub. Zool., 32, p. 221, 1928—Guadalupe Island (monog.).

*Sitta varia* Wilson, Amer. Orn., 1, p. 40, pl. 2, fig. 4, 1808—ex *Sitta varia*, ventre rubro, etc., Bartram, Trav., 1st Amer. ed., p. 289 bis.

*Sitta stulta* Vieillot, Nouv. Dict. Hist. Nat., nouv. éd., 31, p. 332, 1819—based on *Sitta varia* Wilson, Amer. Orn., 1, pl. 2, fig. 4.

*Sitta canadensis canadensis* Hellmayr, in Wytzman, Gen. Av., Part 16, p. 10, 1911—North America.

**Range.**—North America, from the upper Yukon Valley, southern Mackenzie, northern Manitoba, southern Quebec, and Newfoundland south to Minnesota, Michigan, Massachusetts, mountains of New York, and Indiana; in the Sierra Nevada and Rocky Mountains south to California, Arizona, and New Mexico, and in the Alleghenies to North Carolina; also (at least formerly) on Guadalupe Island, Lower California. In winter south to the Gulf coast and northern Florida.

34: Nova Scotia (Weymouth, 1); Maine (Portland, 1); Massachusetts (Assonet, 1; Taunton, 2); Connecticut (Hadlyme, 1); Indiana (Bluffton, 2); Illinois (Lake Forest, 1; Chicago, 1; Lyons, 2;

<sup>1</sup> Represented in China by the closely allied *S. canadensis villosa* J. Verreaux.

Glen Ellyn, 1; Joliet, 1; Beach, 4); Wisconsin (Beaver Dam, 9; Woodruff, 1); Iowa (Burlington, 2); Colorado (Colorado Springs, 1); Oregon (Logan, 1); Lower California (Guadalupe Island, 2).

**\*Sitta pusilla pusilla Latham. BROWN-HEADED NUTHATCH.**

*Sitta pusilla* Latham, Ind. Orn., 1, p. 263, 1790—based on *Sitta carolinensis minor* Brisson, Orn., 3, p. 598, pl. 5, Carolina=South Carolina (ex Catesby); Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 453, 1904—part, southeastern United States, excl. Florida and Great Bahama Island (monog., full bibliog.); Hellmayr, in Wytsman, Gen. Av., Part 16, p. 11, 1911—part, excl. Florida and Great Bahama Island.

*Sitta minor* Bechstein, Latham's Uebers. Vögel, 1, p. 533, footnote in text, 1793—based on *Sitta europaea* ♂ Gmelin, Syst. Nat., 1, (1), p. 440 (ex *Sitta carolinensis minor* Brisson).

*Sitta pusilla pusilla* Bangs, Auk, 15, p. 181, 1898 (crit.); Hellmayr, Tierreich, Lief. 18, p. 189, 1903—southeastern United States (monog.).

*Range*.—Southeastern United States, from eastern Arkansas, southern Missouri, and southern Delaware south to the Gulf coast and eastern Texas; casual in Ohio and New York.

10: North Carolina (Raleigh, 10).

**\*Sitta pusilla caniceps Bangs.<sup>1</sup> GRAY-HEADED NUTHATCH.**

*Sitta pusilla caniceps* Bangs, Auk, 15, p. 180, 1898—Clear Water, Hillsboro County, Florida (type in coll. Bangs, now in Museum of Comparative Zoology, Cambridge, Mass.); Hellmayr, Tierreich, Lief. 18, p. 190, 1903—Florida; Howell, Auk, 47, p. 43, 1930—Florida (crit.); Bangs, Bull. Mus. Comp. Zool., 70, p. 354, 1930—Florida (crit.).

*Sitta pusilla* (not of Latham) Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 453, 1904—part, Florida references and localities; Hellmayr, in Wytsman, Gen. Av., Part 16, p. 11, 1911—part, Florida.

*Range*.—Peninsula of Florida.

19: Florida (West Jupiter, 9; Mary Esther, 2; Pine Island, 1; Fort Myers, 1; Cutler, 1; Eau Gallie, 2; Nassau County, 3).

**\*Sitta pusilla insularis Bond.<sup>2</sup> GREAT BAHAMA NUTHATCH.**

*Sitta pusilla insularis* Bond, Proc. Acad. Nat. Sci. Phila., 83, p. 389, July, 1931—High Rock Settlement, "Grand" Bahama (type in Academy of Natural Sciences, Philadelphia).

<sup>1</sup> *Sitta pusilla caniceps* Bangs may be distinguished by slightly smaller size and decidedly paler coloration, particularly lighter brown pileum.

The differences are well shown in our series.

<sup>2</sup> *Sitta pusilla insularis* Bond: Similar to *S. p. caniceps*, but with longer, slenderer bill and with loreal and auricular regions decidedly darker. Wing (adult female), 60.5; tail, 32; bill (from anterior edge of nostril), 13.

The two specimens in Field Museum are both juvenile, one beginning just to molt into the first annual plumage, and tend to indicate that this nuthatch, regarded as a casual visitor, breeds on Great Bahama Island. The slenderness of the bill is noticeable even in this early stage.

*Sitta pusilla* (not of Latham) Cory, Auk, 8, p. 350, 1890—Great Bahama Island; idem, Cat. W. Ind. Bds., p. 120, 1892—Great Bahama; Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 453, 1904—part, Bahamas; Hellmayr, in Wytsman, Gen. Av., Part 16, p. 11, 1911—part, Bahamas.

*Range*.—Pine forests of Great Bahama Island, Bahamas.

2: Great Bahama Island.

**\**Sitta pygmaea pygmaea* Vigors. PYGMY NUTHATCH.**

*Sitta pygmaea* Vigors, in Zool. Voy. "Blossom," p. 25, pl. 4, fig. 2, 1839—Monterey, California (type probably lost).

*Sitta pygmaea pygmaea* Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 456, 1904—part, California records and references (monog., full bibliog.); van Rossem, Proc. Biol. Soc. Wash., 42, p. 175, 1929—coast of California from Monterey Bay to Mendocino County (crit.).

*Range*.—Transition zone of the coast region of California from San Luis Obispo County north to Mendocino County.

8: California (Monterey, 8).

**\**Sitta pygmaea melanotis* van Rossem.<sup>1</sup> BLACK-EARED NUTHATCH.**

*Sitta pygmaea melanotis* van Rossem, Proc. Biol. Soc. Wash., 42, p. 176, 1929—Chiricahua Mountains, Cochise County, Arizona (type in collection of Donald R. Dickey, Pasadena); Oberholser, Sci. Pub. Cleveland Mus. N. H., 1, p. 116, 1930—Cloudcroft, New Mexico.

*Sitta pygmaea pygmaea* Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 456—part, Rocky Mountain localities and references (monog., full bibliog.).

*Range*.—Rocky Mountain region from southern British Columbia, northern Idaho, and eastern Washington to the Mexican boundary and the Sierra Nevada of California, south to the San Bernardino Mountains; casual in South Dakota and Nebraska.

9: Oregon (Logan, 1); Idaho (Troy, 1); Colorado (Fremont County, 1); Arizona (White Mountains, 1; Mount Graham, 1; Huachuca Mountains, 1); New Mexico (Fort Bayard, 1); California (Big Bear Valley, San Bernardino County, 1; Bluff Lake, San Bernardino County, 1).

***Sitta pygmaea canescens* van Rossem.<sup>2</sup> NEVADA NUTHATCH.**

<sup>1</sup>*Sitta pygmaea melanotis* van Rossem: Similar to *S. p. pygmaea* and about the same size; but pileum decidedly darker, more slaty; streak through the eye more prominent, often nearly blackish; not unlike *S. p. leuconucha*, but smaller and much darker. Wing (adult male), 62–66; tail, 30–35; bill, 15–16½.

This is a well-marked race, as pointed out by the describer.

<sup>2</sup>*Sitta pygmaea canescens* van Rossem: "Exactly resembling *S. p. leuconucha* in pale ashy gray coloration, but size, particularly of bill, decidedly smaller. Similar in size to *S. p. melanotis*, but coloration paler and more ashy throughout, particularly on the head. Wing (adult male), 64; tail, 34; bill, 15." (van Rossem, l.c.).



*Sitta pygmaea canescens* van Rossem, Trans. San Diego Soc. N. H., 6, p. 328, 1931—Lee Cañon, Charleston Mountains, Clark County, Nevada (type in collection of Donald R. Dickey, Pasadena, California).

*Range*.—Yellow pine belt of the Charleston and Sheep Mountains in extreme southern Nevada.

***Sitta pygmaea leuconucha* Anthony. WHITE-NAPED NUTHATCH.**

*Sitta pygmaea leuconucha* Anthony, Proc. Calif. Acad. Sci., (2), 2, p. 77, 1889—San Pedro [Mártir] Mountains, Lower California (type now in Carnegie Museum; cf. Todd, Ann. Carnegie Mus., 18, p. 355, 1928); idem, Zoe, 4, p. 246, 1893—San Pedro Mártir Mountains; Hellmayr, Tierreich, Lief. 18, p. 191, 1903—Lower California; Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 459, 1904—northern Lower California and extreme southern California (monog.); Hellmayr, in Wytsman, Gen. Av., Part 16, p. 11, 1911 (range); Grinnell, Univ. Calif. Pub. Zool., 32, p. 221, 1928—Sierra San Pedro Mártir and Sierra Juárez, Lower California.

*Sitta albinucha* Sharpe, Hand-List Bds., 4, p. 350, 1903—new name for *Sitta pygmaea leuconucha* Anthony.

*Range*.—Northern Lower California (Sierra Juárez and Sierra San Pedro Mártir) and extreme southern California (Riverside and San Diego counties).

2: Lower California (San Pedro Mártir Mountains, 2).

**\**Sitta pygmaea chihuahuae* van Rossem.<sup>1</sup> CHIHUAHUA NUTHATCH.**

*Sitta pygmaea chihuahuae* van Rossem, Proc. Biol. Soc. Biol., 42, p. 177, 1929—Mound Valley, Chihuahua, Mexico (type in Museum of Comparative Zoology, Cambridge, Mass.).

*Sitta pygmaea* (not of Vigors) Sclater, Proc. Zool. Soc. Lond., 27, p. 363, 1859—Jalapa, Vera Cruz; idem, Cat. Coll. Amer. Bds., p. 15, 1862—Jalapa; Sumichrast, Mem. Bost. Soc. N. H., 1, p. 544, 1869—peaks of Orizaba and Popocatepetl; Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 60, 1880—part, Jalapa, Orizaba, and Popocatepetl; Cox, Auk, 12, p. 358, 1895—city of Orizaba and Mount Orizaba; Chapman, Bull. Amer. Mus. N. H., 10, p. 39, 1898—Las Vigas, Vera Cruz (crit.).

*Sitta pygmaea pygmaea* Hellmayr, Tierreich, Lief. 18, p. 191, 1903—part, highlands of Mexico; Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 456, 1904—part, Mexican references and localities; Hellmayr, in Wytsman, Gen. Av., Part 16, p. 11, 1911—part, Mexico.

<sup>1</sup> *Sitta pygmaea chihuahuae* van Rossem: Exceedingly close to *S. p. pygmaea*, but upper parts somewhat darker, wing longer, and bill shorter as well as slightly stouter. Wing (adult males), 64–68; tail, 32–36; bill, 14–15.

Seven adults from Chihuahua, in agreement with the original diagnosis, are very much like typical *pygmaea*, but have somewhat longer wings and shorter bills, while the dorsal surface, particularly the head, is rather darker. The Orizaba specimens being all in fluffy juvenile plumage, I cannot be certain whether or not birds from eastern Mexico are absolutely the same.

*Range*.—Highlands of Mexico, in states of Chihuahua, Vera Cruz, Puebla, and Mexico.

10: Mexico (thirty miles west of Miñaca, Chihuahua, 7; Mount Orizaba, Puebla, 3).

Family CERTHIIDAE. Creepers

Subfamily CERTHIINAE

Genus CERTHIA Linnaeus

*Certhia* Linnaeus, Syst. Nat., 10th ed., 1, p. 118, 1758—type, by tautonymy, "*Certhia*"=*Certhia familiaris* Linnaeus.

\**Certhia americana americana* Bonaparte.<sup>1</sup> BROWN CREEPER.

*Certhia americana* Bonaparte, Geog. and Comp. List Bds. Europe and North America, p. 11, 1838—new name for *Certhia familiaris* Audubon [Bds. America, folio ed.], pl. 419, North America.

*Certhia fusca* (not of Gmelin, 1788) Barton, Fragm. Nat. Hist. Penn., p. 11, 1799—Pennsylvania.

*Certhia rufa* Coues, Proc. Acad. Nat. Sci. Phila., 1875, p. 347 (ex "*Certhia rufa*" Bartram, Trav. Florida, p. 289 bis).

*Certhia familiaris americana* Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 464, 1904—eastern North America (monog., full bibliog.); Oberholser, Auk, 35, p. 464, 1918 (crit.).

*Certhia brachydactyla americana* Hellmayr, in Wytsman, Gen. Av., Part 15, p. 8, 1911 (range).

*Range*.—Eastern North America, from southern Manitoba, central Ontario, and southern Quebec south to eastern Nebraska, northern Indiana, New York, and Massachusetts and along the Alleghenies to North Carolina, casually also in southeastern Missouri; in winter south to Texas, Alabama, and Florida.

41: Maine (Lincoln, 1); Massachusetts (Brookline, 1); Connecticut (East Hartford, 2); New York (Auburn, 1; Sennett, 1; Peterboro, 1); North Carolina (Monroe County, 2); Georgia (Sapelo

<sup>1</sup> The systematic position of the American Creeper, whose conspecific affinity to *C. familiaris* remained unchallenged for many years, has lately been attacked by Hartert (Vög. Pal. Fauna, 1, p. 325, 1905), who claimed closer relationship to *C. brachydactyla*, a contention that was strongly opposed by Oberholser. The investigation of the problem requires more time than I can at present bestow upon it. There is no doubt, however, that the American bird, in shape of hind claw, proportion of bill, decidedly tawny-ochraceous rump, and markings of the dorsal surface, closely resembles *C. familiaris*, whereas the dusky spot near the tips of the under primary coverts and the dusky ground color of pileum and back are suggestive of *C. brachydactyla*. Pending a thorough study of the subject, I have provisionally accorded it specific rank, although geographical considerations favor the theory of its derivation from *C. familiaris*, which ranges all over northern Asia to the Okhotsk Sea and Japan, while *C. brachydactyla* reaches the eastern limits of its distribution in Asia Minor and Poland.

Island, 2); Ohio (Columbus, 1); Indiana (Bluffton, 3; Miller, 1); Illinois (Worth, 1; Chicago, 6; Lake Forest, 1; Joliet, 2); Wisconsin (Beaver Dam, 11; Woodruff, 1); Iowa (Knoxville, 3).

***Certhia americana montana* Ridgway. ROCKY MOUNTAIN CREEPER.**

*Certhia familiaris montana* Ridgway, Proc. U. S. Nat. Mus., 5, p. 114, 1882—"Middle Province of North America north to Kadiak, Alaska, breeding south to New Mexico and Arizona" (type from Apache, Arizona, in U. S. National Museum); idem, Bull. U. S. Nat. Mus., 50, Part 3, p. 467, 1904—Rocky Mountain district (monog., full bibliog.); Swarth, Pac. Coast Avifauna, 10, p. 76, 1914—Arizona (breeding in San Francisco Mountain, Mount Graham, and Mogollon Mountains, migrant in Huachuca Mountains); Oberholser, Sci. Pub. Clevel. Mus. N. H., 1, p. 117, 1930—Cloudcroft, New Mexico.

*Certhia brachydactyla montana* Hellmayr, in Wytzman, Gen. Av., Part 15, p. 8, 1911—Rocky Mountain district.

*Range*.—Rocky Mountains of North America, from central Alaska (Mount McKinley), British Columbia, and southern Alberta south to northern and central Arizona and New Mexico; in winter to southeastern California.

2: Colorado (Colorado Springs, 1; Fort Lyon, 1).

**\**Certhia americana zelotes* Osgood. SIERRA CREEPER.**

*Certhia familiaris zelotes* Osgood, Auk, 18, p. 182, 1901—Battle Creek, Tehama County, California (type in U. S. National Museum); Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 468, 1904—California to British Columbia (monog., full bibliog.); Grinnell, Dixon, and Linsdale, Univ. Calif. Pub. Zool., 35, p. 327, 1930—Lassen Peak, California.

*Certhia brachydactyla zelotes* Hellmayr, in Wytzman, Gen. Av., Part 15, p. 8, 1911—California to British Columbia.

*Range*.—Canadian and Transition zones from the Cascade Mountains of Washington and the Sierra Nevada of California north to southern British Columbia and northern Idaho and south to the San Jacinto Mountains, spreading into adjacent valleys in winter.

4: California (Big Bear Valley, San Bernardino Mountains, 3; San Gabriel Mountains, 1).

**\**Certhia americana occidentalis* Ridgway. CALIFORNIA CREEPER.**

*Certhia americana occidentalis* Ridgway, Proc. U. S. Nat. Mus., 5, p. 115, 1882—Pacific coast of North America, breeding from mountains of northern California to British Columbia (type from Simiahmoo, Washington, in U. S. National Museum); idem, Bull. U. S. Nat. Mus., 50, Part 3, p. 470, 1904—Pacific coast from California to southern Alaska (monog., full

bibliog.); Swarth, Univ. Calif. Pub. Zool., **24**, p. 295, 1922—Stikine River, British Columbia; idem, l.c., p. 367, 1924—Skeena River, British Columbia (crit.).

*Certhia brachydactyla occidentalis* Hellmayr, in Wytzman, Gen. Av., Part 15, p. 8, 1911—northern California to southern Alaska.

*Range*.—Pacific coast, in the Transition and Canadian zones, from Sitka, Alaska, to Monterey, California.

7: Oregon (Portland, 1); California (Clipper Gap, 3; Nicasio, 2; Riverside, 1).

***Certhia americana leucosticta* van Rossem.<sup>1</sup> NEVADA CREEPER.**

*Certhia familiaris leucosticta* van Rossem, Trans. San Diego Soc. N. H., **6**, p. 329, June, 1931—Hidden Forest, Sheep Mountains, Clark County, Nevada (type in collection of D. R. Dickey, Pasadena).

*Range*.—Transition and Alpine zones in the Sheep and Charleston Mountains, Clark County, Nevada.

**\**Certhia americana albenscens* Berlepsch. WEST MEXICAN CREEPER.**

*Certhia mexicana albenscens* Berlepsch, Auk, **5**, p. 450, 1888—Durango, Durango, Mexico (type in Berlepsch Collection, now in Frankfort Museum, examined).

*Certhia familiaris albenscens* Oberholser, Auk, **13**, p. 315, 1896—Chihuahua, Sonora, and Arizona (crit.); Hellmayr, Tierreich, Part 18, p. 212, 1903—northwestern Mexico and Arizona (monog.); Ridgway, Bull. U. S. Nat. Mus., **50**, Part 3, p. 472, 1904—northwestern Mexico and southern Arizona (monog., full bibliog.); Miller, Bull. Amer. Mus. N. H., **22**, p. 182, 1906—Durango (La Cienaga de las Vacas, Rio Sestin, and Arroyo del Buey); Phillips, Auk, **28**, p. 82, 1911—Tamaulipas (Galindo, Montelunga, Realito); Swarth, Pac. Coast Avifauna, **10**, p. 76, 1914—mountains of southeastern Arizona (breeding); Miller and Griscom, Amer. Mus. Nov., **183**, p. 7, 1925—Jalisco (Guadalajara), Durango, Sonora, Chihuahua, and Arizona; Oberholser, Sci. Pub. Clevel. Mus. N. H., **1**, p. 94, 1930—Huachuca Mountains, Arizona.

*Certhia brachydactyla albenscens* Hellmayr, in Wytzman, Gen. Av., Part 15, p. 8, 1911—northwestern Mexico and Arizona.

<sup>1</sup> *Certhia americana leucosticta* van Rossem: "Among the North American races this is the palest and grayest. Dorsally, the coloration resembles, in the absence of brown tones, *C. a. albenscens*, but is much paler and the streaks are pure white instead of pale gray; ventrally, *leucosticta* is clear pure white, tinged on flanks with pale gray, and on under tail coverts with pale clay color." (van Rossem, l.c.).

According to the describer, this form bears little resemblance to *C. a. zelotes* or *C. a. montana*. In the relative amount of white above there is close agreement between *C. a. leucosticta* and *C. a. montana*, but while in the latter light brown tones prevail, the new form is ashy and practically "colorless" dorsally, except on the rump.

*Range*.—Northern Mexico, from northern Jalisco (Guadalajara), Nayarit (Santa Teresa), and Tamaulipas through Zacatecas, Durango, Chihuahua, and Sonora north to extreme southeastern Arizona (Chiricahua, Santa Rita, Santa Catalina, and Huachuca Mountains), in lower Canadian and Transition zones.

21: Mexico (Coyotes, Durango, 1; near Oposura, Sonora, 1; thirty miles west of Miñaca, Chihuahua, 9); Arizona (Huachuca Mountains, 6; Chiricahua Mountains, 4).

***Certhia americana jaliscensis* Miller and Griscom.<sup>1</sup> JALISCO CREEPER.**

*Certhia familiaris jaliscensis* Miller and Griscom, Amer. Mus. Nov., 183, p. 6, 1925—Volcan de Nieve, Sierra Nevada de Colima, Jalisco (type in the American Museum of Natural History, New York).

*Range*.—High mountains of western Mexico in southern Jalisco (Volcan de Colima, La Cienaga, Zapotlan, Las Cañas, Volcan de Fuego, La Pisagua, etc.).

**\**Certhia americana alticola* G. S. Miller. EAST MEXICAN CREEPER.**

*Certhia mexicana* (not of Gmelin, 1788) Gloger, Handb. Naturg. Vög. Eur., p. 381 (footnote), 1834—Mexico (type, from some locality in State of Vera Cruz,<sup>2</sup> in Berlin Museum, examined); Sumichrast, Mem. Bost. Soc. N. H., 1, p. 544, 1869—alpine region of Vera Cruz (Moyoapam, Popocatepetl, Mount Orizaba); Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 61, 1879—Mexico, Vera Cruz (Ranchos de Suapam, La Parada, Cinco Señores, Jalapa, Orizaba, etc.), and Guatemala (Volcan de Fuego, Totonicapam, and ridge above San Gerónimo to Chilasco).

*Certhia familiaris alticola* G. S. Miller, Auk, 12, p. 186, 1895—new name for *Certhia mexicana* Gloger, preoccupied; Cox, Auk, 12, p. 358, 1895—Mount Orizaba, Vera Cruz; Oberholser, Auk, 13, p. 316, 1896—part, southern Mexico (excl. southern Jalisco) and Guatemala (crit.); Chapman, Bull. Amer. Mus. N. H., 10, p. 39, 1896—Las Vigas, Vera Cruz; Hellmayr, Tierreich, Part 18, p. 212, 1903—southern Mexico and Guatemala (monog.); Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 471, 1904—part, states of Hidalgo, Vera Cruz, Puebla, Oaxaca, and Chiapas, and Guatemala (monog., full bibliog.); Dearborn, Field Mus. Nat. Hist., Orn. Ser., 1, p. 134, 1907—near Tecpam, Guatemala.

<sup>1</sup> *Certhia americana jaliscensis* Miller and Griscom: "Resembling *C. a. alticola*, but browner, less black above, the rump tawny rather than chestnut; averaging smaller, especially the wing. Similar also to *C. a. albescens*, differing not only in the respects given above, but under parts more brownish gray, less white." (Miller and Griscom, l.c.).

We are not acquainted with this obviously well-marked race.

<sup>2</sup> Miller and Griscom (Amer. Mus. Nov., 183, p. 7, 1925) suggest Las Vigas, Vera Cruz, as type locality.

*Certhia brachydactyla alticola* Hellmayr, in Wytsman, Gen. Av., Part 15, p. 8, 1911—part, range, excl. Jalisco and Nicaragua.

*Range*.—Mountains of eastern and southern Mexico, in states of Hidalgo, Vera Cruz, Puebla, Michoacan, Oaxaca, and Chiapas, and in Guatemala.<sup>1</sup>

1: Guatemala (Sierra Santa Elena, near Tecpam, 1).

**\**Certhia americana extima* Miller and Griscom.<sup>2</sup> NICARAGUAN CREEPER.**

*Certhia familiaris extima* Miller and Griscom, Amer. Mus. Nov., 183, p. 6, 1925—San Rafael del Norte, Nicaragua (type in the American Museum of Natural History, New York).

*Certhia mexicana* (not of Gloger) Salvin and Godman, Ibis, 1892, p. 325—Matagalpa, Nicaragua.

*Range*.—Highlands of Nicaragua (San Rafael del Norte, Matagalpa).

4: Nicaragua (San Rafael del Norte, 4).

**Family CHAMAEIDAE. Wren-tits**

**Genus CHAMAEA Gambel**

*Chamaea* Gambel, Proc. Acad. Nat. Sci. Phila., 3, No. 7, p. 154, May, 1847—type, by orig. desig., *Parus fasciatus* Gambel.

**\**Chamaea fasciata phaea* Osgood. COAST WREN-TIT.**

*Chamaea fasciata phaea* Osgood, Proc. Biol. Soc. Wash., 13, p. 42, 1899—Newport, Yaquina Bay, Oregon (type in U. S. National Museum); Hellmayr, Tierreich, Lief. 18, p. 125, 1903—part, coast of Oregon; Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 689, 1904—part, coast of Oregon (monog., full bibliog.); Hellmayr, in Wytsman, Gen. Av., Part 23, p. 3, 1913—part, coast of Oregon.

*Range*.—Pacific coast of Oregon from the Columbia River to near the California line.<sup>3</sup>

2: Oregon (Netarts, 2).

<sup>1</sup> The single Guatemalan bird available for study does not materially differ from a series of Mexican specimens.

<sup>2</sup> *Certhia americana extima* Miller and Griscom: Nearest to *C. a. alticola*, but decidedly smaller with proportionately longer bill; marginal spots on primaries white instead of buff; under parts much paler, though not so whitish as in *C. a. albescens*; under tail coverts only faintly tinged with buffy. Wing, 58–60; tail, 55–58; bill, 15–16.

<sup>3</sup> Specimens from extreme northern California (Humboldt Bay and Crescent City), formerly referred to *C. f. phaea*, are stated by Grinnell and Swarth (Univ. Calif. Pub. Zool., 30, p. 174, 1926) to be nearer to *C. f. rufula*.

**\*Chamaea fasciata rufula** Ridgway. RUDDY WREN-TIT.

*Chamaea fasciata rufula* Ridgway, Proc. Biol. Soc. Wash., 16, p. 109, 1903—Nicasio, Marin County, California (type in U. S. National Museum); idem, Bull. U. S. Nat. Mus., 50, Part 3, p. 688, 1904 (monog., full bibliog.); Hellmayr, in Wytsman, Gen. Av., Part 23, p. 3, 1913—coast of California.

*Range*.—Humid coast strip of California from Del Norte County south to Santa Cruz County.

13: California (Nicasio, 5; San Geronimo, 1; Marin County, 3; San Francisco, 1; Los Gatos, 3).

**\*Chamaea fasciata fasciata** (Gambel). GAMBEL'S WREN-TIT.

*Parus fasciatus* Gambel, Proc. Acad. Nat. Sci. Phila., 2, p. 265, 1845—"California"—Monterey<sup>1</sup> (type in U. S. National Museum).

*Chamaea fasciata intermedia* Grinnell, Condor, 2, p. 86, 1900—Palo Alto, Santa Clara County, California (type in collection of J. Grinnell, now in Museum of Vertebrate Zoology, Berkeley); Hellmayr, Tierreich, Lief. 18, p. 125, 1903—San Francisco Bay.

*Chamaea fasciata* Gambel, Journ. Acad. Nat. Sci. Phila., (2), 1, p. 34, pl. 8, fig. 3, 1847—California.

*Chamaea fasciata fasciata* Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 686, 1904 (monog., full bibliog.); Hellmayr, in Wytsman, Gen. Av., Part 23, p. 2, 1913—California.

*Range*.—Upper Austral zone on the eastern and southern shores of San Francisco Bay and adjacent Santa Clara Valley, south along the coast to San Luis Obispo County.

9: California (Oakland, 2; Palo Alto, 4; Monterey, 3).

**\*Chamaea fasciata henshawi** Ridgway. PALLID WREN-TIT.

*Chamaea fasciata henshawi* Ridgway, Proc. U. S. Nat. Mus., 5, p. 13, 1882—interior of California, including western slope of Sierra Nevada (type from Walker Basin, between Kernville and Caliente, in U. S. National Museum); idem, Bull. U. S. Nat. Mus., 50, Part 3, p. 689, 1904—part, excl. Lower California (monog., full bibliog.); Hellmayr, in Wytsman, Gen. Av., Part 23, p. 3, 1913 (range).

*Range*.—Upper Austral zone of the foothills and valleys of interior and southern California from Shasta County south, and along the coast from Santa Barbara County to the Mexican boundary.

21: California (Placer County, 2; St. Helena, 1; Plymouth, 1; Drytown, 1; Lakeside, 1; Marysville, 1; Mulberry, San Benito County, 2; Corona, 1; Benedict Canyon, 1; Los Angeles County, 2; Monrovia, Los Angeles County, 1; Altadena, 3; Sierra Madre, 1; Upland, San Bernardino County, 1; San Diego, 2).

<sup>1</sup> Cf. Grinnell and Swarth, Univ. Calif. Pub. Zool., 30, p. 172, 1926.

**Chamaea fasciata canicauda** Grinnell and Swarth.<sup>1</sup> SAN PEDRO WREN-TIT.

*Chamaea fasciata canicauda* Grinnell and Swarth, Univ. Calif. Pub. Zool., **30**, p. 169, 1926—La Grulla, San Pedro Mártir, Lower California, Mexico (type in Museum of Vertebrate Zoology, Berkeley); Grinnell, l.c., **32**, p. 225, 1928—Lower California.

*Chamaea fasciata henshawi* (not of Ridgway, 1882) Ridgway, Bull. U. S. Nat. Mus., **50**, Part 3, p. 689, 1904—part, Lower California.

**Range.**—Upper Austral zone of northwestern Lower California, from the United States boundary south to 30° latitude.

## Family CINCLIDAE. Dippers

Genus CINCLUS Borkhausen<sup>2</sup>

*Cinclus* Borkhausen, Deutsche Fauna, **1**, p. 300, April, 1797—type, by monotypy, *Cinclus hydrophilus* Borkhausen=*Sturnus cinclus* Linnaeus.

*Accentor* Bechstein, Getreue Abbild. Naturhist. Gegenstände, **2**, Heft 3, p. 47, pl. 30, [later than September], 1797—type, by monotypy, *Accentor aquaticus* Bechstein=*Sturnus cinclus* Linnaeus.

*Aquatilis* Montagu, Suppl. Orn. Dict., Cat., [p. 2], 1813—type, by monotypy, *Sturnus cinclus* Linnaeus.

*Hydrobata* Vieillot, Nouv. Dict. Hist. Nat., nouv. éd., **1**, p. 219, 1816—type, by monotypy, *Hydrobata albicollis* Vieillot=*Sturnus cinclus* Linnaeus.

*Hydrichla* Billberg, Syn. Faun. Scand., **1**, Pars 2, tab. A, p. 75, 1828—type, by monotypy, *Sturnus cinclus* Linnaeus.

**\*Cinclus mexicanus unicolor** Bonaparte. AMERICAN DIPPER.

*Cinclus unicolor* Bonaparte, Zool. Journ., **3**, pp. 52, 53 (in text), 1827—"Inhabits near the Rocky Mountains, on the Athabascow Lake, probably [also] northeastern Asia"—near the source of the Athabasca River, Alberta (type probably lost).

*Cinclus americanus* Swainson, Faun. Bor.-Amer., **2**, p. 173, Feb., 1832—near the source of the Athabasca River, on the eastern declivity of the Rocky Mountains (type probably lost).

*Cinclus mortoni* Townsend, Narrative, p. 339, 1839—"near Fort McLoughlin, on the northwest coast of America, in latitude about 49° N." (cites Audubon, Bds. Amer., **4**, pl. 435).

*Cinclus townsendi* ("Audubon") Townsend, Narrative, p. 340, 1839—vicinity of Fort Vancouver, Washington.

*Cinclus mexicanus unicolor* Ridgway, Bull. U. S. Nat. Mus., **50**, Part 3, p. 679, 1904 (monog., full bibliog.).

<sup>1</sup> *Chamaea fasciata canicauda* Grinnell and Swarth: Nearest to *C. f. henshawi*, but less brownish throughout; the cinnamon of the under parts extremely pale, the middle of the belly nearly white; the upper parts, head, wings, and flanks slaty; tail deep slate; bill and feet decidedly black instead of horn-color.

<sup>2</sup> The geographical distribution of the genus has been fully discussed by Stejneger (Smiths. Misc. Coll., **47**, pp. 421-430, 1905).



*Range*.—Mountains of western North America from northern Alaska, northeastern British Columbia, and western Alberta south to southern California and southern New Mexico. Accidental in the Black Hills, South Dakota, and in western Nebraska.<sup>1</sup>

12: Washington (Glacier, 1; Clallam County, 1); Oregon (Cornucopia, 1); California (La Honda, 2; Felton, 1; Beswick, 2; American River, 1); Arizona (Huachuca Mountains, 1); Colorado (Boulder, 2).

**\**Cinclus mexicanus mexicanus* Swainson.<sup>2</sup> MEXICAN DIPPER.**

*Cinclus mexicanus* Swainson, Philos. Mag., (new ser.), 1, No. 5, p. 368, May, 1827—Temascaltepec, Mexico (type formerly in Bullock Collection, probably lost); Sclater, Proc. Zool. Soc. Lond., 27, p. 362, 1859—Jalapa, Vera Cruz; Baird, Rev. Amer. Bds., 1, p. 60, 1864—part, Jalapa; Salvin, Ibis, 1867, p. 120—part (monog.); Sumichrast, Mem. Bost. Soc. N. H., 1, p. 544, 1869—"Temperate and alpine regions, Vera Cruz, 1,000–2,500 meters"; Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 44, 1879—part, Temascaltepec, Jalapa, Terra Fria, Vera Cruz, Oaxaca; Sharpe, Cat. Bds. Brit. Mus., 6, p. 317, 1881—part, Mexico; Allen, Bull. Amer. Mus. N. H., 5, p. 41, 1893—Chuchuchapa, Sonora.

*Cinclus mexicanus mexicanus* Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 677, 1904—part, Mexico.

*Range*.—Mountains of Mexico, from Chihuahua and Sonora south to Oaxaca and Vera Cruz.

1: Chihuahua (thirty miles west of Miñaca, 1).

**\**Cinclus mexicanus anthonyi* Griscom.<sup>3</sup> GUATEMALAN DIPPER.**

*Cinclus mexicanus anthonyi* Griscom, Amer. Mus. Nov., 438, p. 7, 1930—forty-five miles east of Nenton, Guatemala (type in the American Museum of Natural History, New York).

*Cinclus mexicanus* (?) (not of Swainson) Salvin, Ibis, 1866, p. 190—Totonicapam, Guatemala; Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 44, 1879—part, Guatemala; Sharpe, Cat. Bds. Brit. Mus., 6, p. 317, 1881—part, Guatemala; Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 677, 1904—part, Guatemala.

*Range*.—Mountains of western Guatemala (Barillos, San Mateo, Tecpam).

1: Guatemala (Tecpam, 1).

<sup>1</sup> Erroneously recorded by Ridgway (l.c.) and Nelson (Nat. Acad. Sci., 16, Memoir 1, p. 131, 1921) from Lower California. Grinnell (Univ. Calif. Pub. Zool., 32, p. 245, 1928) states that there is no authentic record of any specimen from Lower California.

<sup>2</sup> *Cinclus mexicanus mexicanus* Swainson: Similar to *C. m. unicolor* but darker, with head and neck of a deeper brown.

<sup>3</sup> *Cinclus mexicanus anthonyi* Griscom: Similar to *C. m. mexicanus*, but differs by purer gray (less brownish) body coloration and darker brown head and neck, which form a sharp contrast to the gray of the rest of the plumage.

**\*Cinclus mexicanus ardesiacus** Salvin.<sup>1</sup> COSTA RICAN DIPPER.

*Cinclus ardesiacus* Salvin, Ibis, 1867, p. 121, pl. 2, 1867—Cordillera de Tolé, Veraguas (type now in British Museum); Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 45, 1879—Costa Rica and Panama; Bangs, Proc. New Engl. Zool. Cl., 3, p. 51, 1902—Volcan de Chiriquí and Boquete, Panama; Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 681, 1904 (monog., full bibliog.); Carriker, Ann. Carnegie Mus., 6, p. 751, 1910—Costa Rican localities.

*Cinclus mexicanus* (not of Swainson) Cherrie, Auk, 8, p. 395, 1891—mountains of Costa Rica; Ridgway, Auk, 24, p. 105, 1907—Costa Rica (crit.).

*Range*.—Mountains of Costa Rica and western Panama (Chiriquí and Veraguas).

1: Panama (Boquete, 1).

**Cinclus leucocephalus rivularis** Bangs.<sup>2</sup> SANTA MARTA DIPPER.

*Cinclus rivularis* Bangs, Proc. Biol. Soc. Wash., 13, p. 105, 1899—Chirua and Páramo de Chiriqua, Santa Marta Mountains (type from Chirua in coll. Bangs, now in Museum of Comparative Zoology, Cambridge; cf. Bangs, Bull. Mus. Comp. Zool., 70, p. 322, 1930); Allen, Bull. Amer. Mus. N. H., 13, p. 181, 1900 (ex Bangs); Todd and Carriker, Ann. Carnegie Mus., 14, p. 408, 1922—Macotama, San Miguel, and Taquina, Santa Marta Mountains (crit., habits).

*Range*.—Santa Marta Mountains, northern Colombia.

**\*Cinclus leucocephalus leuconotus** Sclater. WHITE-BACKED DIPPER.

*Cinclus leuconotus* Sclater, Proc. Zool. Soc. Lond., 25, "1857," p. 274, pub. Jan., 1858—"in Nova Grenada et rep. Equatoriana" (type from Bogotá in coll. P. L. Sclater, now in British Museum); idem, Cat. Coll. Amer.

<sup>1</sup> *Cinclus mexicanus ardesiacus* Salvin: Similar to *C. m. mexicanus*, but smaller; general tone of coloration lighter; head and neck decidedly paler brown, less contrasting with gray of back.

<sup>2</sup> *Cinclus leucocephalus rivularis* Bangs, while somewhat intermediate between the two, is much more nearly related to *C. l. leucocephalus* than to its geographical neighbor, *C. l. leuconotus*. It agrees with the former in the dark-colored (not white) under parts and in having only narrow white shaft-streaks on the concealed basal portion of the dorsal feathers, but differs by decidedly gray (deep mouse gray) instead of dull blackish brown upper and lower surface, and slightly paler, grayish rather than blackish, sides of the head, while the white color underneath is restricted to the throat proper (not extended onto the upper chest) and more or less clouded (or spotted) with gray. There is much individual variation in the coloration of the under parts. Certain specimens are nearly uniform deep mouse gray with only some concealed white spots near the base of the feathers and with the throat heavily spotted with gray; others have the throat extensively white in the middle and are profusely mottled with white on the breast and upper abdomen, suggesting an approach to the white-bellied *C. l. leuconotus*. Wing, 84–89, (female) 81; tail, 49, (female) 46; bill, 14–15.

The three white-capped dippers form a natural group, which is immediately distinguished from *C. mexicanus* by shorter, stouter bill and the white basal band of the remiges.

*Material examined*.—Santa Marta Mountains: Chirua, 1; Taquina, 1; San Miguel, 2.

Bds., p. 10, 1862—Bogotá; Salvin, Ibis, 1867, p. 122—Pasto, Colombia, and Quito; Selater and Salvin, Proc. Zool. Soc. Lond., 1870, p. 780—Mérida, Venezuela; idem, l.c., 1879, p. 492—Retiro and Frontino, Antioquia; Wyatt, Ibis, 1871, p. 320—Vetas and Matisuga, Santander; Sharpe, Cat. Bds. Brit. Mus., 6, p. 320, 1881—Bogotá (range); Taczanowski and Berlepsch, Proc. Zool. Soc. Lond., 1885, p. 71—San Rafael, Ecuador; Stone, Proc. Acad. Nat. Sci. Phila., 1899, p. 312—Bogotá; Goodfellow, Ibis, 1901, p. 311—Papallacta, Ecuador; Ménégau, Miss. Serv. Géogr. Arm. Mes. Arc Mérid. Equat., 9, p. B 68, 1911—Tumbaco, Ecuador; Chapman, Bull. Amer. Mus. N. H., 36, p. 529, 1917—Juntas de Tamaná, Salento, Rio Toché, San Agustín, Fusugasugá, and Quetame, Colombia; idem, l.c., 55, p. 576, 1926—Hacienda Garcón, Verdecocha, Taraguacocha, Salvias, Las Piñas, Cumbaya, Papallacta, and upper Rio Upano, Ecuador; Berlioz, Bull. Mus. Hist. Nat. Paris, 34, p. 73, 1928—Volcan de San Pedro Tingo, Ecuador.

*Cinclus leucocephalus* (not of Tschudi) Lafresnaye, Rev. Zool., 10, p. 68, 1847—Pasto, "in Peruvia" (crit.).

*Range*.—Western Venezuela (Cordillera of Mérida to Lara), Colombia (eastern, central, and western Andes), and Ecuador.<sup>1</sup>

1: Venezuela (Rio Mucujón, Mérida, 1).

**\**Cinclus leucocephalus leucocephalus* Tschudi. WHITE-CAPPED DIPPER.**

*Cinclus leucocephalus* Tschudi, Arch. Naturg., 10, (1), p. 279, 1844—Peru; idem, Faun. Peru., Aves, p. 180, pl. 15, fig. 1, 1846—Jauja (alt. 14,500 ft.), Dept. Junín, Peru (type in Neuchâtel Museum); Salvin, Ibis, 1867, p. 122—Jauja, Peru, and Bolivia (crit.); Selater and Salvin, Proc. Zool. Soc. Lond., 1869, p. 599—Pitumarca, Dept. Cuzco, Peru; Taczanowski, l.c., 1874, p. 504—between Cucas and Palcamayo, Peru; Selater and Salvin, l.c., 1874, p. 677—Ccachupata, Dept. Cuzco; Sharpe, Cat. Bds. Brit. Mus., 6, p. 321, 1881—Peru; Taczanowski, Orn. Pér., 1, p. 501, 1884—Jauja, Ccachupata, and between Cucas and Palcamayo, Peru; Salvin, Nov. Zool., 2, p. 2, 1895—Huamachuco, Dept. Libertad, Peru; Berlepsch and Stolzmann, Proc. Zool. Soc. Lond., 1896, p. 327—Palcamayo and Maraynioc, Dept. Junín, Peru; Chapman, Bull. U. S. Nat. Mus., 117, p. 103, 1921—San Miguel Bridge, Urubamba, Peru.

*Range*.—Andes of Peru (north to Molinopampa, Dept. Amazonas) and Bolivia (depts. of La Paz and Cochabamba).<sup>2</sup>

1: Peru (Molinopampa, Dept. Amazonas, 1).

<sup>1</sup> Specimens from Venezuela agree with others from Colombia, and two Ecuadorian ones do not seem to be different either.

*Material examined*.—Ecuador: Paramba, Prov. Imbabura, 1; "Quito," 1.—Colombia: Sancudo, Caldas, 1; Bogotá, 2.—Venezuela: Páramo de Rosas, Lara, 1; Páramo Frías, Mérida, 2; La Cuchilla, Mérida, 2; Tabay, Mérida, 1; Rio Mucujón, Mérida, 2.

<sup>2</sup> Bolivian birds seem to be inseparable, though they are perhaps on average slightly blacker.

*Material examined*.—Peru: Molinopampa, Amazonas, 1; Maraynioc, Pariyacu, Dept. Junín, 1; Ccachupata, Dept. Cuzco, 1.—Bolivia: Chicani, Dept. La Paz, 2; Cocapata, 1; Quebrada Onda, Cochabamba, 1.

**\*Cinclus schulzi** Cabanis.<sup>1</sup> RUFOUS-THROATED DIPPER.

*Cinclus schulzi* Cabanis, Journ. Orn., 31, p. 102, pl. 2, fig. 3, 1883—Cerro "Vayo" [= Bayo], Tucumán (type in Berlin Museum); Sclater and Hudson, Arg. Orn., 1, p. 11, pl. 2, 1888—Cerro "Vayo"; Lillo, Anal. Mus. Nac. Hist. Nat. Buenos Aires, 8, p. 172, 1902—Cerro Bayo (ex Cabanis); idem, Rev. Letr. Cienc. Soc., 3, p. 39, 1905—La Cienaga, Tucumán; Hartert and Venturi, Nov. Zool., 16, p. 164, 1909—"Aufama" [= Anfama], Tucumán; Dabbene, Anal. Mus. Nac. Hist. Nat. Buenos Aires, 18, p. 357, 1910—Cerro Bayo, La Cienaga, and Anfama, Tucumán; Dinelli, El Hornero, 1, p. 59, 1918—Cerros of Tucumán (habits), and "Catamarca" (ex Fontana); Budin, El Hornero, 4, p. 410, 1931—eastern range of Zenta, Jujuy.

*Range*.—Andes of northwestern Argentina, in provinces of Tucumán (Cerro Bayo, La Cienaga, Anfama) and Jujuy (Zenta).

1: Argentina (Anfama, Tucumán, 1).

## Family TROGLODYTIDAE. Wrens

## Genus CINNYCERTHIA Lesson

*Cinnycerthia* Lesson, Echo du Monde Sav., 11, 2nd sem., No. 8, col. 182, July 28, 1844—type, by monotypy, *Cinnycerthia cinnamomea* Lesson=*Limnornis unirufus* Lafresnaye.

*Cinnicerthia* Sclater, Proc. Zool. Soc. Lond., 23, p. 143, 1855—emendation.

*Presbys* Cabanis, Mus. Hein., 1, p. 80, Oct., 1851—type, by monotypy, *Limnornis canifrons* Lafresnaye=*L. unirufus* Lafresnaye.

**\*Cinnycerthia unirufa** unirufa (Lafresnaye). BAY WREN.

*Limnornis unirufus* Lafresnaye, Rev. Zool., 3, p. 105, 1840—Santa-Fé-de-Bogotá (types in coll. Lafresnaye, now in Museum of Comparative Zoology, Cambridge, Mass.; cf. Bangs, Bull. Mus. Comp. Zool., 70, p. 310, 1930); Bonaparte, Atti Sesta Riun. Sci. Ital., p. 404, 1845—Bogotá.

*Limnornis canifrons* Lafresnaye, Rev. Zool., 3, p. 105, 1840—Santa-Fé-de-Bogotá (=juv.; type in coll. Lafresnaye, now in Museum of Comparative Zoology, Cambridge, Mass.; cf. Bangs, Bull. Mus. Comp. Zool., 70, p. 310, 1930).

*Cinnycerthia cinnamomea* Lesson, Echo du Monde Sav., 11, 2nd sem., No. 8, col. 182, July 28, 1844—"Colombie" (type in coll. Abeillé, Bordeaux).

*Cinnycerthia unicolor* Lesson, Oeuvr. Buffon, éd. Lévêque, 20 [=Descr. Mamm. Ois.], p. 286, 1847—"Colombie" (new name for *Cinnycerthia cinnamomea* Lesson).

<sup>1</sup> *Cinclus schulzi* Cabanis, by its gray coloration, recalls *C. mexicanus*, but has the short, stout bill of the *C. leucocephalus* group. The white wing-band is, however, much more extensive, reaching across the entire width of the web, and the bright cinnamon gular area (passing into grayish on the chin) is another striking feature of this peculiar species.

*Material examined*.—Tucumán: Anfama, 7.

*Cinnicerthia unirufa* Selater, Proc. Zool. Soc. Lond., 23, p. 143, 1855—Bogotá; idem, Cat. Coll. Amer. Bds., p. 18, 1862—Bogotá; Sharpe, Cat. Bds. Brit. Mus., 6, p. 182, 1881—Bogotá and "Quito" (errore); Chapman, Bull. Amer. Mus. N. H., 36, p. 508, 1917—El Piñon, above Fusugasugá, Colombia.

*Cinnicerthia canifrons* Selater, Proc. Zool. Soc. Lond., 23, p. 143, 1855—Bogotá.

**Range.**—Temperate zone of the eastern Andes of Colombia and adjacent districts of western Venezuela (Tachira).

8: Colombia (Bogotá, 2; Cachiri, Santander, 2; Páramo de Tamá, Santander, 3); Venezuela (Páramo de Tamá, Tachira, 1).<sup>1</sup>

### ***Cinnycerthia unirufa unibrunnea* (Lafresnaye).<sup>2</sup> BROWN WREN.**

*Limnornis* ou *Thryothorus unibrunneus* Lafresnaye, Rev. Mag. Zool., (2), 5, p. 59, 1853—"Pichincha, Equateur" (types in coll. Lafresnaye, now in Museum of Comparative Zoology, Cambridge, Mass.; cf. Bangs, Bull. Mus. Comp. Zool., 70, p. 311, 1930).

*Triothorus unibrunnea* Jardine, Edinb. New Philos. Journ., (n.s.), 2, p. 119, 1855—temperate regions of eastern Ecuador; idem, l.c., 3, p. 91, 1856—eastern Cordillera, Ecuador.

*Cinnicerthia unibrunnea* Selater, Proc. Zool. Soc. Lond., 26, p. 550, 1858—Matos; idem, l.c., 28, p. 74, 1860—Lloa and Guagua, Pichincha; idem, Cat. Coll. Amer. Bds., p. 18, 1862—Matos, Ecuador; Sharpe, Cat. Bds. Brit. Mus., 6, p. 183, 1881—Quito, Matos, and "Bogotá"; Taczanowski and Berlepsch, Proc. Zool. Soc. Lond., 1885, p. 71—Machay, Mapoto, and San Rafael, Ecuador; Salvadori and Festa, Boll. Mus. Zool. Torino, 14, No. 357, p. 5, 1899—Nanegal, Intac, Guala, Frutillas, Chinguil (Lloa, Pichincha), and Lloa, Ecuador; Goodfellow, Ibis, 1901, p. 312—western Andes and Papallacta, Ecuador; Ménégau, Miss. Serv. Géog. Armée Mes. Arc Mérid. Equat., 9, p. B 66, 1911—Lloa, Chorillos (Nanegal), and Liguí (Quito-Santo Domingo Road); Chapman, Bull. Amer. Mus.

<sup>1</sup>Ten additional "Bogotá" skins examined. The white-fronted form (*C. canifrons*) is now known to be inseparable, though the significance of the variation remains to be determined.

<sup>2</sup>*Cinnycerthia unirufa unibrunnea* (Lafresnaye) is clearly conspecific with *C. unirufa*, which it replaces in Ecuador and the central and western parts of Colombia. It agrees with the east Andean race in structure and color-pattern, viz. obsolete dusky barring of wings and tail and conspicuous sooty black loreal spot, and differs merely by much darker (rufous brown instead of bright tawny) general coloration, while the inner webs of the remiges are but narrowly fringed with dull pinkish buff instead of largely bordered with bright ochraceous-tawny. The bill is frequently, though not always, shorter. Birds with whitish forehead (*canifrons*) do not seem to occur in *unibrunnea*. The juvenile plumage is characterized by dull grayish pileum and sides of head, duller, more brownish under parts, and partly yellow lower mandible. A single (unsexed) adult bird from the western Andes of Colombia is more intensely rufous brown, especially below and on the head, than any of fifteen Ecuadorian skins, and lacks the rufescent margin to the inner webs of the remiges. Chapman, however, found specimens from the central Cordillera of Colombia to be identical with a series from Ecuador.

**Material examined.**—Colombia: Monte Socorro, alt. 3,800 meters, western Andes, St. Fassl coll., 1 (Tring Museum).—Ecuador: Baños (alt. 6,000–8,000 ft.), 7; Pichincha, 6; "Govinda," 1; "Quito," 2; "Mindo," 1.

N. H., 36, p. 508, 1917—Laguneta and Santa Isabel, central Andes, Colombia (crit.); Lönnberg and Rendahl, Ark. Zool., 14, No. 25, p. 76, 1922—Pichincha, Ecuador; Chapman, Bull. Amer. Mus. N. H., 55, p. 562, 1926—Pichincha, Verdecocha, above Loja, Rio Upano, above Baeza, Oyacachi, Papallacta, and upper Sumaco, Ecuador; Berlioz, Bull. Mus. Hist. Nat. Paris, 34, p. 72, 1928—Aluguincho, Ecuador.

*Cinnicerthia olivascens* (not of Sharpe) Goodfellow, Ibis, 1901, p. 312—western side of Pichincha, Ecuador (=juv.; specimen in Tring Museum examined).

*Cinnicerthia unirufa* (not *Limnornis unirufus* Lafresnaye) Lönnberg and Rendahl, Ark. Zool., 14, No. 25, p. 76, 1922—Pichincha, Ecuador.

*Range*.—Temperate zone of Ecuador and central and western Andes of Colombia.

### ***Cinnycerthia peruana peruana* (Cabanis).<sup>1</sup> PERUVIAN BROWN WREN.**

*Presbys peruana* Cabanis, Journ. Orn., 21, p. 317, 1873—Maraynioc, Peru (type in Berlin Museum examined); Taczanowski, Proc. Zool. Soc. Lond., 1874, p. 505—Maraynioc (egg descr.).

*Cinnicerthia peruviana* Sharpe, Cat. Bds. Brit. Mus., 6, p. 402, 1881—new name for *Presbys peruana* Cabanis (lapsu).

*Cinnicerthia peruana* Taczanowski, Orn. Pér., 1, p. 506, 1884—Maraynioc (monog.); Berlepsch and Stolzmann, Proc. Zool. Soc. Lond., 1896, p. 327—Pariayacu and Maraynioc, Peru (crit.).

*Range*.—Temperate zone of central Peru, in Dept. Junín (Maraynioc, Pariayacu).

### ***Cinnycerthia peruana olivascens* Sharpe.<sup>2</sup> SALMON'S BROWN WREN.**

*Cinnicerthia olivascens* Sharpe, Cat. Bds. Brit. Mus., 6, p. 184, pl. 11, 1881—Santa Elena, central Andes of Colombia (type in British Museum ex-

<sup>1</sup>*C. peruana* obviously is specifically different from *C. unirufa*, since representatives of the two groups, viz., *C. p. olivascens* and *C. u. unibrunnea*, occur side by side in the central Andes of Colombia, e.g., at Laguneta. It may immediately be distinguished by the regular black barring of the upper wing coverts, wing and tail feathers, which, in the allied species, are either uniform or show at best a few obsolete wavy lines; the absence of the conspicuous blackish loreal spot; much duller olivaceous (less tawny) general coloration; pale rufescent, dusky-barred inner margin of the remiges; finally by shorter slenderer bill.

Typical *C. p. peruana* is exceedingly rare in collections. The two specimens, both from Maraynioc, which we have seen, exhibit much the same variation in color as does a series of the closely related *C. p. olivascens*. Wing, 63 (female) 60; tail, 59; bill, 14.

*Material examined*.—Peru: Maraynioc, one adult male (the type); Maraynioc, Pariayacu, one adult female.

<sup>2</sup>*Cinnycerthia peruana olivascens* Sharpe: Very close to *C. p. peruana*, but considerably larger with stronger bill; the grayish postocular streak absent or just faintly suggested; general color, particularly the pileum, much more olivaceous. Wing, 67–74 (female) 66–70; tail, 65–72 (female) 63–69; bill, 15–16½.

Birds from the western Andes of Colombia (*C. o. infasciata*), which have been separated on account of their supposedly larger size and less rufescent,

amined); Chapman, Bull. Amer. Mus. N. H., 36, p. 508, 1917—part, Andes west of Popayan and Cocal, western Andes, Laguneta and above Salento, central Andes; idem, l.c., 55, p. 562, 1926—below Oyacachi, upper and lower Sumaco, and above Loja, Ecuador.

*Cinnicerthia olivascens infasciata* Chapman, Bull. Amer. Mus. N. H., 31, p. 158, 1912—Andes west of Popayan, western Andes of Colombia (type in the American Museum of Natural History, New York, examined).

*Cinnicerthia unibrunnea* (not *Limnornis unibrunneus* Lafresnaye) Selater and Salvin, Proc. Zool. Soc. Lond., 1879, p. 492—Retiro and Santa Elena, Antioquia (spec. in British Museum examined).

*Range*.—Subtropical and Temperate zones of eastern Ecuador and of the western and central Andes of Colombia.

***Cinnycerthia peruana bogotensis* (Matschie).<sup>1</sup> BOGOTÁ BROWN WREN.**

*Presbys bogotensis* Matschie, Journ. Orn., 33, p. 466, 1885—Bogotá (type in Berlin Museum examined).

*Cinnicerthia olivascens* (not of Sharpe) Chapman, Bull. Amer. Mus. N. H., 36, p. 508, 1917—part, Andalucia and El Roble, near Bogotá, eastern Andes of Colombia.

*Range*.—Temperate zone of the eastern Andes of Colombia.

***Cinnycerthia fulva* (Selater).<sup>2</sup> SUPERCILIATED BROWN WREN.**

unbarred upper surface, appear to me identical with typical *olivascens*, of the central Andes. There is no appreciable difference in dimensions so far as I can see, and the dusky wavy lines across the back, which are grossly exaggerated in Sharpe's plate, I find only in two out of eight central Andean birds, while the tone of general coloration varies too much in individuals from the same locality to be of diagnostic value. An Ecuadorian series agrees well with the general run from Colombia, although two specimens, by a suggestion of a faint grayish tinge in the postocular region, reveal the close affinity of the present form to *C. p. peruana*.

*Material examined*.—Colombia, western Andes: Coast Range west of Popayan, 2; Cocal, 3; central Andes, Santa Elena, 5; Jerico, 1; Laguneta, 1; west Quindio Andes above Salento, 1.—Ecuador: Sumaco, 9.

<sup>1</sup> *Cinnycerthia peruana bogotensis* (Matschie): Agreeing in size and absence of grayish postocular streak with *C. p. olivascens*, but coloration much darker, even deeper than in *C. p. peruana*. The upper parts, when compared to *olivascens* of the central and western Andes, are argus brown rather than Brussels brown, the pileum but little lighter in tone, while the ventral surface is more strongly tinged with ochraceous-fulvous, sometimes approaching antique brown. Wing, 69–73 (female) 65; tail, 67–69; bill, 15–16½.

Four Bogotá skins and two from Andalucia, Huila, taken as a whole, are so much darker that the recognition of an east Andean form seems appropriate. In the large series of *C. p. olivascens* I find only two specimens, one from Cocal, western Andes, and one from Sumaco, Ecuador, which nearly approach the lightest individual of *C. p. bogotensis* in intensity of color.

*Material examined*.—Eastern Colombia: Bogotá, 4 (including the type); Andalucia, Huila, 2.

<sup>2</sup> *Cinnycerthia fulva* (Selater), while resembling *C. peruanus* in closely barred wings and tail and pattern of under parts, differs at a glance by much smaller size, the presence of a well-defined, large, buffy white superciliary streak, dark gray or sooty loreal spot, and paler upper as well as under parts. It is doubtless

*Thryophilus fulvus* Sclater, Proc. Zool. Soc. Lond., for Dec., 1873, p. 781, 1874—Huasampilla, Dept. Cuzco, Peru (type in British Museum examined); Sclater and Salvin, l.c., 1879, p. 593—Simacu, Bolivia; Taczanowski, Orn. Pér., 1, p. 517, 1884—Huasampilla.

*Thryophilus guarayanus* (not *Troglodytes guarayanus* Lafresnaye and d'Orbigny) Sharpe, Cat. Bds. Brit. Mus., 6, p. 211, 1881—Bolivia; Allen, Bull. Amer. Mus. N. H., 2, p. 79, 1889—Yungas, Bolivia.

*Range*.—Temperate zone of southeastern Peru (Huasampilla, Dept. Cuzco) and western Bolivia (Dept. La Paz).

### Genus CISTOTHORUS Cabanis<sup>1</sup>

*Cistothorus* Cabanis, Mus. Hein., 1, p. 77 (note), 1851—type, by subs. desig. (Gray, Cat. Gen. Subgen. Bds., p. 31, 1855), *Troglodytes stellaris* Naumann.

*Telmatodytes* Cabanis, Mus. Hein., 1, p. 78 (note), 1851—type, by subs. desig. (Baird, Rep. Pac. R. R. Surv., 9, p. 362, 1858), *Certhia palustris* Wilson.

### \**Cistothorus platensis hornensis* (Lesson).<sup>2</sup> CAPE HORN GRASS WREN.

*Troglodytes hornensis* Lesson, L'Institut, 2, No. 72, p. 317, Sept., 1834—"pris en mer, le 7 janvier 1831, à vingt lieues dans le sud-est du Cap Horn";<sup>3</sup> idem, in Bougainville, Journ. Navig. Thétis et Espérance, 2,

congeneric with *C. peruana*, and has no affinities with the genus "*Thryophilus*." Wing, 55-59; tail, 54-60; bill, 14-15.

The type (from Huasampilla, Peru) is more reddish, less olivaceous, throughout than a Bolivian series. The divergency requires confirmation by additional specimens.

*Material examined*.—Peru: Huasampilla, Dept. Cuzco, 1 (the type).—Bolivia, Dept. La Paz: Sandillani, 4; Cillutincara, 1; Simacu, 1.

<sup>1</sup> *Cistothorus apolinari* is so decidedly intermediate in structural characters between *Cistothorus* and *Telmatodytes* that I am forced to unite these two "genera." Its bill is as long as in *Telmatodytes*, but even thicker and heavier than in *Cistothorus*. The tail feathers are broad and apically bluntly rounded as in *Telmatodytes*, the graduation of the tail about the same, but the tarsi and toes are even stronger than in the Long-billed Marsh Wren.

<sup>2</sup> *Cistothorus platensis hornensis* (Lesson): Nearest to *C. p. platensis*, but much more profusely streaked above. The light stripes on the pileum are wider and darker, more cinnamonaceous, the black and buff dorsal markings much more strongly developed and extended all over the lower back and rump, and the upper tail coverts distinctly barred with blackish. Besides, the lateral parts of the body are much darker, pinkish buff to cinnamon buff. Wing, 47-50 (female) 44-47; tail, 38-46; bill, 11  $\frac{1}{2}$ -13.

Birds from western Chubut (Valle del Lago Blanco) and Chile agree well together, while three skins from the Falkland Islands are minutely larger and slightly darker beneath.

*Material examined*.—Chile: Santiago, 1; Concepción, 1; Talcahuano, 1; Villa Portalés, Cautín, 1; Valdivia, 1; Chiloé Island, 3; Rio Nirehuau, Llanquihue, 2; unspecified, 3.—Falkland Islands, 3.—Argentina, Chubut: Lago del Valle Blanco, 3.

<sup>3</sup> The location of the type is unknown. It was never turned over to the Paris Museum, but may exist in the Museum of the Naval Medical School at Rochefort (France), where part of Lesson's private collection is supposed to be preserved.



p. 327, 1837—same locality; Philippi, Anal. Univ. Chile, 31, p. 256, 1868—Valdivia and Santiago, Chile; Waugh and Lataste, Act. Soc. Scient. Chili, 4, p. LXXXV, 1894—Peñaflor, Prov. Santiago (crit.).

*Thryothorus eidouxi* Bonaparte, Consp. Gen. Av., 1, p. 221, 1850—"Brazil," errore; based on "Troglodyte des Marais ? Wils. fem.," Voyage Pôle Sud "Astrolabe" et "Zélée," Atlas, Zool., Ois., pl. 19, fig. 6, Oct., 1844 (type from Talcahuano, Chile, in Paris Museum examined).

*Troglodytes eydouxi* Jacquinet and Pucheran, Voy. Pôle Sud "Astrolabe" et "Zélée," Zool., 3, p. 94, 1853—Talcahuano, Chile.

*Troglodytes platensis* (not *Sylvia platensis* Latham) Darwin, Zool. Beagle, 2, p. 75, 1839—part, Falkland Islands; Gould, Proc. Zool. Soc. Lond., 27, p. 95, 1859—Falkland Islands; Des Murs, in Gay, Hist. fis. pol. Chile, Zool., 1, p. 311, 1847—Chile.

*Cistothorus platensis* Sclater, Proc. Zool. Soc. Lond., 28, p. 384, 1860—Falkland Islands; Abbott, Ibis, 1861, p. 153—Falkland Islands; Sclater, Proc. Zool. Soc. Lond., 1867, pp. 321, 337—Chile (crit.); Landbeck, Zool. Garten, 18, p. 241, 1877—Chile (habits); Reed, Anal. Univ. Chile, 49, p. 542, 1877—Cauquenes, Colchagua; Sharpe, Cat. Bds. Brit. Mus., 6, p. 244, 1881—Falkland Islands, Straits of Magellan, and Santiago, Chile; Sclater and Hudson, Arg. Orn., 1, p. 15, 1888—part, Falkland Islands; Ridgway, Proc. U. S. Nat. Mus., 12, p. 131, 1889—Gregory Bay, Straits of Magellan; C. Burmeister, Anal. Mus. Nac. Hist. Nat. Buenos Aires, 3, p. 317, 1890—Lago Colhué, Chubut; Reed, Anal. Univ. Chile, 93, p. 199, 1896—Chile; Albert, l.c., 103, p. 218, 1899—Chile (monog., excl. habits); Schalow, Zool. Jahrb. (Syst.), Suppl., 4, p. 729, 1898—Cabo Espiritu Santo, Tierra del Fuego, and Ushuaia, Beagle Channel; Dabene, Anal. Mus. Nac. Hist. Nat. Buenos Aires, 8, p. 359, 1902—same localities; idem, l.c., 18, p. 355, 1910—part, Cabo Espiritu Santo and Ushuaia; Crawshaw, Bds. Tierra del Fuego, p. 43, pl., 1907—Useless Bay Settlement; Bullock, Rev. Chil. Hist. Nat., 33, p. 185, 1929—Angol, Chile.

*Cistothorus platensis eydouxi* Hellmayr, Bull. Brit. Orn. Cl., 19, p. 75, 1907—Chile, southern Patagonia, and Falkland Islands.

*Cistothorus platensis hornensis* Hellmayr, Nov. Zool., 28, p. 252, 1921—Chile to Tierra del Fuego and Falkland Islands (monog.); Paessler, Journ. Orn., 70, p. 471, 1922—Coronel, Chile (habits, nest and eggs); Peters, Bull. Mus. Comp. Zool., 65, p. 327, 1923—seven miles east of Bariloche, Lake Nahuel Huapi, Neuquen; Wetmore, Univ. Calif. Pub. Zool., 24, p. 454, 1926—Arroyo Las Bayas, Rio Negro; Stone, Rep. Princet. Univ. Exp. Patag., 2, Part 5, p. 819, 1927—Rio Chico and Mount Tigre, Patagonia; Hellmayr, Field Mus. Nat. Hist., Zool. Ser., 19, p. 38, 1932—Chile (range).

*Cistothorus platensis eydouxi* Wace, El Hornero, 2, p. 204, 1921—Falkland Islands.

*Cistothorus eydouxi* Bennett, Ibis, 1926, p. 331—Falkland Islands.

*Range*.—Chile, from the vicinity of Santiago south to Tierra del Fuego; southern and western Patagonia, north to Lake Nahuel Huapi, Neuquen; Falkland Islands.

6: Chile (Villa Portalés, Cautín, 1; Quellon, Chiloé Island, 2; Rio Inio, Chiloé Island, 1; Rio Nirehuau, Llanquihue, 2).

**Cistothorus platensis platensis (Latham). LA PLATA MARSH WREN.**

*Sylvia platensis* Latham, Ind. Orn., 2, p. 548, 1790—based on "Le Roitelet, de Buenos Ayres" Daubenton, Pl. Enl., pl. 730, fig. 2; Buenos Aires.

*Troglodytes platensis* Darwin, Zool. Beagle, 2, p. 75, 1839—part, Bahia Blanca.

*Cistothorus platensis* Durnford, Ibis, 1877, p. 168—Lujan Bridge, Buenos Aires; Doering, in Roca, Inf. Of. Exp. Rio Negro, Zool., p. 37, 1881—Lavalle to Carhué (Buenos Aires), Rio Sauce (Chico), Rio Colorado, and Rio Negro; Barrows, Bull. Nutt. Orn. Cl., 8, p. 87, 1883—Carhué, Prov. Buenos Aires; Sclater and Hudson, Arg. Orn., 1, p. 15, 1888—Argentina (part); Stempelmann and Schulz, Bol. Acad. Nac. Cienc. Córdoba, 10, p. 397, 1890—Córdoba; Holland, Ibis, 1892, p. 194—Estancia Espertillar, Buenos Aires; Sanzin, El Hornero, 1, p. 151, 1918—La Paz, Mendoza; Daguerre, l.c., 2, p. 270, 1922—Rosas, Prov. Buenos Aires; Marelli, Mem. Min. Obr. Publ. for 1922-23, p. 652, 1924—Buenos Aires; Pereyra, El Hornero, 4, p. 32, 1927—San Rafael, Mendoza.

*Cistothorus platensis platensis* Hartert and Venturi, Nov. Zool., 16, p. 163, pl. 2, figs. 1-2, 5-6 (eggs), 1909—Bahia Blanca and Barracas al Sud, Buenos Aires; Hellmayr, Bull. Brit. Orn. Cl., 19, p. 75, 1907 (range); Dabbene, Anal. Mus. Nac. Hist. Nat. Buenos Aires, 18, p. 355, 1910—part, Rio Colorado, Rio Negro, Sierra de Córdoba, and Prov. Buenos Aires; Hellmayr, Nov. Zool., 28, p. 250, 1921—eastern Argentina (monog.); Wetmore, Bull. U. S. Nat. Mus., 133, p. 349, 1926—Lavalle, Prov. Buenos Aires, and Tunuyán, Prov. Mendoza (crit., habits).

*Synallaxis troglodytoides* Lafresnaye and d'Orbigny, Syn. Av., 1, in Mag. Zool., 7, cl. 2, p. 22, 1837—Patagonia (type in Paris Museum examined); d'Orbigny, Voy. Amér. Mérid., Ois., p. 238, 1839—"aux environs de la Bahia de San Blas," Prov. Buenos Aires; Hellmayr, Nov. Zool., 28, p. 250, 1921 (crit.).

*Cistothorus fasciolatus* Burmeister, Journ. Orn., 8, p. 252, 1860—Mendoza (types in Halle Museum examined); idem, Reise La Plata St., 2, p. 476, 1861—Mendoza.

*Troglodytes fasciolatus* Giebel, Zeits. Ges. Naturw., 31, p. 15, 1868—Mendoza (crit.).

*Cistothorus polyglottus* (not *Thryothorus polyglottus* Vieillot) Sharpe, Cat. Bds. Brit. Mus., 6, p. 245, 1881—part, spec. b, Bahia Blanca.

**Range.**—Eastern Argentina, from the mouth of the Rio Negro north to the La Plata and Entre Rios, west to Córdoba and Mendoza.<sup>1</sup>

<sup>1</sup> The types of *C. fasciolatus* from Mendoza agree precisely with specimens from the Atlantic coast, showing no approach to the western form (*C. p. hornensis*). A single adult from Entre Rios forms the passage to *C. p. polyglottus* by having the inner web of the three lateral pairs of rectrices largely blackish.

**Material examined.**—Prov. Buenos Aires: Bahia San Blas, 1; Bahia Blanca, 2; Barracas al Sud, 1; Lavalle, 1.—Mendoza: Mendoza, 2.—Entre Rios: Santa Elena, 1.

**Cistothorus platensis tucumanus** Hartert and Venturi.<sup>1</sup> TUCUMÁN GRASS WREN.

*Cistothorus platensis tucumanus* Hartert and Venturi, Nov. Zool., 16, p. 163, Dec., 1909—Tucumán (type in Tring Museum examined); idem, l.c., 27, p. 505, 1920—Tucumán; Hellmayr, l.c., 28, p. 251, 1921—Tucumán (monog.); Dabbene, Bol. Soc. Physis, 1, p. 246, 1913—northwestern Argentina.

*Cistothorus platensis* (not *Sylvia platensis* Latham) Lillo, Anal. Mus. Nac. Hist. Nat. Buenos Aires, 8, p. 172, 1902—Cuesta de Malamala, Tucumán; idem, Rev. Letr. Cienc. Soc., 3, p. 39, 1905—same locality; Dabbene, Anal. Mus. Nac. Hist. Nat. Buenos Aires, 18, p. 355, 1910—part, Cuesta de Malamala (ex Lillo); Budin, El Hornero, 4, p. 410, 1931—Maimará, Jujuy.

**Range.**—Northwestern Argentina, in provinces of Tucumán and Jujuy.

**Cistothorus platensis polyglottus** (Vieillot).<sup>2</sup> BRAZILIAN GRASS WREN.

*Thryothorus polyglottus* Vieillot, Nouv. Dict. Hist. Nat., nouv. éd., 34, p. 59, 1819—based on "Todo vox" Azara, No. 151, Paraguay;<sup>3</sup> Burmeister, Syst. Uebers. Th. Bras., 3, p. 135, 1856—"im inneren Brasilien, auf dem Camposgebiet."

*Troglodytes omnisonus* Naumann, Vög. Deutschl., 3, tab. facing p. 724, 1823—based on Azara, No. 151, Paraguay.

<sup>1</sup> *Cistothorus platensis tucumanus* Hartert and Venturi: Most nearly related to, and agreeing with, *C. p. platensis* in markings of pileum and tail, as well as in paleness of under parts, but with a longer bill and the lower back and rump plain fulvous-brown (not variegated with black and white streaks or spots), while the dusky cross-lines on the upper tail coverts are less pronounced. Wing (two females), 47, 47½; tail, 48, 49; bill, 12½, 13.

By the unmarked rump this little-known Grass Wren approaches *C. p. graminicola*, but is much less fulvescent throughout with more conspicuously, also differently streaked pileum. From *C. p. polyglottus* it may be separated by the striped crown of the head and by the rectrices being on both webs regularly barred with rufescent and black.

**Material examined.**—Prov. Tucumán: "Tucuman," 1 (the type); San Pablo (alt. 1,200 meters), 1.

<sup>2</sup> *Cistothorus platensis polyglottus* (Vieillot): Differs from *C. p. platensis* by smaller size; shorter, slenderer bill; much narrower, buffy white superciliaries; plain brown rump (not variegated with black and whitish); nearly uniform brown pileum, with mere suggestions of pale shaft-lines; finally, by having the inner web of the rectrices (except the central pair) for the greater part plain blackish or dusky. Wing, 41–44; tail, 38–44; bill, 10–11.

**Material examined.**—São Paulo: Paciencia, 2; Ypanema, 1; Itatinga, 1; Vendinha, 1.—Paraná: Castro, 1; Curytiba, 1.—Rio Grande do Sul: Pedras Brancas, 1.

<sup>3</sup> Azara, besides, mentions "Rio La Plata," where another form (*C. p. platensis*) is found; but the description, especially of the tail, corresponds to the south Brazilian bird, which is likely to range into eastern Paraguay (cf. Nov. Zool., 28, pp. 254–255, 1921).

*Troglodytes intercapularis* Nordmann, in Erman's Reise, Naturhist. Atlas, p. 13, 1835—Brazil, presumably São Paulo (type in Berlin Museum examined).

*Cistothorus polyglottus* Pelzeln, Orn. Bras., 1, p. 48, 1868—São Paulo (Ypanema, Ytararé, Borda do Matto, Vendinha, Paciencia) and Paraná (Curytiba, Castro); Reinhardt, Vidensk. Medd. Naturhist. Foren., 1870, p. 448 (ex Pelzeln); Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 105, 1880—part, Paraguay and Brazil (Castro); Sharpe, Cat. Bds. Brit. Mus., 6, p. 245, 1881—part, Paraguay and Brazil; Ihering, Ann. Est. Rio Grande do Sul, 16, p. 116, 1899—Pedras Brancas, Rio Grande do Sul; idem, Rev. Mus. Paul., 3, p. 132, 1899—São Paulo; idem, l.c., 5, p. 292, 1902—Iguapé, São Paulo (eggs); idem, Cat. Faun. Braz., 1, p. 324, 1907—Batataes, São Paulo; Bertoni, Faun. Parag., p. 59, 1914—Paraguay.

*Cistothorus polyglottus polyglottus* Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 481, 1904—Brazil.

*Cistothorus platensis polyglottus* Hellmayr, Bull. Brit. Orn. Cl., 19, p. 75, 1907—Paraguay and southeastern Brazil; idem, Nov. Zool., 28, p. 254, 1921—Paraguay and southern Brazil (monog.).

*Cistothorus interscapularis* Cabanis, Mus. Hein., 1, p. 78, 1851—Brazil (diag.); Sclater, Cat. Coll. Amer. Bds., p. 22, 1862—Brazil; Reinhardt, Vidensk. Medd. Naturhist. Foren., 1870, p. 447—Curvelo and Lagôa Santa, Minas Geraes.

*Thryothorus interscapularis* Burmeister, Syst. Uebers. Th. Bras., 3, p. 136, 1856—São Paulo and Santa Catharina; Ihering, Journ. Orn., 46, p. 9, 1898 (crit.).

**Range.**—Paraguay and southeastern Brazil, from Minas Geraes to Rio Grande do Sul.<sup>1</sup>

### ***Cistothorus platensis alticola* Salvin and Godman.<sup>2</sup> RORAIMA GRASS WREN.**

*Cistothorus alticola* Salvin and Godman, Ibis, (5), 1, p. 204, 1883—Roraima, British Guiana (type now in British Museum examined); Salvin, Ibis, 1885, p. 202—Roraima; Chubb, Bds. Brit. Guiana, 2, p. 358, 1921—

<sup>1</sup>*Cistothorus polyglottus* has been recorded from Argentina by Lillo (Anal. Mus. Nac. Hist. Nat., 8, p. 173, 1902; idem, Rev. Letr. Cienc. Soc., 3, p. 39, 1905—Agua de la Tipa and San Pablo, Tucumán) and from "Chaco" by Dabbene (Anal. Mus. Nac. Hist. Nat. Buenos Aires, 18, pp. 355, 435, 1910). These specimens should be carefully reexamined. While the inhabitants of the Chaco might easily be referable to this form, I strongly doubt its occurrence as far west as Tucumán, where *C. p. tucumanus* is known to occur.

<sup>2</sup>*Cistothorus platensis alticola* Salvin and Godman: Very close to *C. p. polyglottus*, but superciliary streak much reduced, often wanting, and grayish rather than buffy whitish; brown color of flanks more extensive and darker, more rufescent. Wing, 42–46 (female) 42–45; tail, 42–48 (female) 41–45; bill, 11–12.

Direct comparison of nine Venezuelan specimens, including a topotype of *C. p. caracasensis*, with a good series from British Guiana fails to reveal any constant difference, and fifteen skins from the Santa Marta region are not distinguishable either. An adult male from Escorial, alt. 3,000 meters, Mérida (A.M. N.H., No. 146665, Aug. 19, 1912. S. Briceño), is perfectly typical of the present form, and has not the slightest resemblance to *C. meridae*. It has perhaps the

Roraima; Todd and Carriker, Ann. Carnegie Mus., 14, p. 426, 1922—San Miguel, Cerro de Caracas, and Taquina, Santa Marta Mountains (crit., habits).

*Cistothorus platensis alticola* Hellmayr, Bull. Brit. Orn. Cl., 19, p. 75, 1907—Roraima; idem, Nov. Zool., 28, p. 255, 1921—Roraima (monog.); Chapman, Bull. Amer. Mus. N. H., 63, p. 107, 1931—Roraima (crit.).

*Cistothorus platensis caracasensis* Chapman, Amer. Mus. Nov., 2, p. 6, 1921—Cotiza, Caracas, Venezuela (type in the American Museum of Natural History, New York, examined).

**Range.**—Subtropical zone of British Guiana (Roraima and Annai); northern Venezuela (Cotiza, Caracas; Anzoategui, Lara; Escorial, Mérida); and northern Colombia (Santa Marta Mountains).

**\**Cistothorus platensis tamae* Cory.<sup>1</sup> PÁRAMO DE TAMÁ GRASS WREN.**

*Cistothorus platensis tamae* Cory, Field Mus. Nat. Hist., Orn. Ser., 1, p. 344, Aug., 1916—Páramo de Tamá (headwaters of the Tachira River), Venezuela (type in Field Museum of Natural History).

interscapular region more profusely streaked, and the rump and flanks deeper rufescent than a series from Anzoategui, but is closely matched by one of the Cotiza birds. It is the only specimen we have seen from the Páramo zone, all the others having been taken at much lower altitudes in the Subtropical zone.

*C. p. alticola* agrees with *C. p. polyglottus* in having the pileum and rump unstreaked; the upper tail coverts regularly, though narrowly, barred with dusky; and the inner webs of the five lateral tail feathers, except a few bars at the tip, plain blackish or dusky. The superciliaries, however, are barely suggested by a few tiny grayish white, dusky-edged streaks above the auriculars, and the brownish area on the sides of the body is much darker in tone (sayal brown). The under tail coverts vary from nearly uniform to strongly barred with dusky. A few specimens—irrespective of locality—show some dusky transverse spots on the flanks.

**Material examined.**—British Guiana: Annai, 2 (both males, collected by H. Whitely, Jr., on July 7, 1890); Roraima, alt. 3,500 ft., 12.—Venezuela: Paulo, alt. 4,000 ft., Roraima, 2; Cotiza, Caracas, 2; Anzoategui, Lara, 7; Escorial, alt. 3,000 meters, Mérida, 1.—Colombia, Santa Marta Mountains: Mount Rancho, Sierra Nevada, 3; San Miguel, Sierra Nevada, 11; Cerro de Caracas, alt. 8,000–9,000 ft., Sierra Nevada, 1.

<sup>1</sup> *Cistothorus platensis tamae* Cory: Closely similar to *C. p. aequatorialis*, but more rufescent throughout. The pileum, lower back, and upper tail coverts are darker rufescent brown (somewhat paler than Brussels brown); the superciliaries darker, deep pinkish buff to cinnamon buff; the sides, flanks, and under tail coverts much darker, buckthorn brown rather than cinnamon buff; this color much more extensive, the whole throat and chest being strongly tinged with cinnamon-buff, and leaving but a narrow pale pinkish buff zone along the abdominal line. Wing, 49–50 (female) 48; tail, 44–46 (female) 40–45; bill, 12–13.

In the regularly barred rectrices without dusky area on the inner web of the lateral pairs, the unstreaked pileum and lower back, as well as in the possession of broad lengthened warm buff superciliaries, *C. p. tamae* resembles the Ecuadorian form, but by its intense coloration diverges even more from its geographical neighbor, *C. p. alticola*, than does *C. p. aequatorialis*.

Birds from the east Colombian Andes (Bogotá region and Santander) are identical with the original series of *C. p. tamae*.

**Material examined.**—Eastern Andes of Colombia: Chipaque, near Bogotá, 1; Páramo de Choachi, east of Bogotá, 1; Páramo Guerrero, Santander, 6.—Venezuela: Páramo de Tamá, 6.

*Cistothorus aequatorialis fulvescens* Todd, Proc. Biol. Soc. Wash., 32, p. 114, July, 1919—Páramo Guerrero, Santander, Colombia (type in Carnegie Museum examined); idem, Ann. Carnegie Mus., 18, p. 356, 1928 (crit.).

*Cistothorus aequatorialis* (not of Lawrence) Chapman, Bull. Amer. Mus. N. H., 33, pp. 635, 636 (in text), 1914; idem, l.c., 36, p. 517, 1917—part, Chipaque, twelve miles east of Bogotá, Colombia (specimen examined).

**Range.**—Páramo zone of the eastern Andes of Colombia, east to the Venezuelan boundary (Páramo de Tamá, Tachira).

7: Colombia (Páramo de Choachi, eastern Andes, 1); Venezuela (Páramo de Tamá, 6).

### ***Cistothorus platensis aequatorialis* Lawrence.<sup>1</sup> EQUATORIAL GRASS WREN.**

*Cistothorus aequatorialis* Lawrence, Ann. Lyc. Nat. Hist. N. Y., 10, p. 3, 1871—Pichincha, Ecuador (type in Vassar College, now in the American Museum of Natural History, No. 156,657, examined); Ménégau, Miss. Serv. Géog. Armée Mes. Arc Mérid. Equat., 9, p. B 67, 1911—Pichincha and "Quito," Ecuador; Chapman, Bull. Amer. Mus. N. H., 33, pp. 635, 636 (in text), 1914; idem, l.c., 36, p. 517, 1917—part, Valle de las Pappas and Páramo de Santa Isabel, central Andes of Colombia (crit.); Lönnberg and Rendahl, Ark. Zool., 14, No. 25, p. 77, 1922—Pichincha; Berlioz, Bull. Mus. Hist. Nat., Paris, 34, p. 72, 1928—Cerro Mojanda, Ecuador.

*Cistothorus platensis aequatorialis* Hellmayr, Bull. Brit. Orn. Cl., 19, p. 76, 1907—mountains of Ecuador; idem, Nov. Zool., 28, p. 253, 1921—Ecuador and southern Colombia (monog.); Chapman, Bull. Amer. Mus. N. H., 55, p. 568, 1917—above Chambo, Pichincha, above Gualera, Urbina, Chimborazo, Taraguacocha, Cerro Huamani, and upper Rio Pita, Ecuador.

*Cistothorus brunneiceps* Salvin, Ibis, (4), 5, p. 129, pl. 3, fig. 1, 1881—Sical, Ecuador (type, now in British Museum, examined); Sharpe, Cat. Bds.

<sup>1</sup> *Cistothorus platensis aequatorialis* Lawrence differs from *C. p. alticola* by longer wings and tarsi; bright buff, instead of grayish white, lores; much more conspicuous and broader, warm buff superciliaries; considerably lighter and more buffy or fulvous upper parts; much brighter, ochraceous-tawny, instead of dull rufescent, tail with regular blackish cross-bars (in *alticola* the bars are narrower and often broken up into spots) and without the plain dusky area on the inner web of the lateral rectrices; strongly buff (not grayish brown) sides of head, and much brighter (cinnamon-buff) sides and flanks, this color extending in a warm buff tinge across the chest, while in *alticola* the whole under parts except the rufescent (saya brown) sides are entirely white. Wing, 46–49; tail, 40–46; bill, 11½–13.

Birds from the central Andes of Colombia are minutely larger (wing, 49–51; tail, 44–47) and slightly less rufescent above, especially on pileum and rump, with the light dorsal stripes somewhat paler buff and the superciliaries not quite so pronounced, while the under parts are also paler, the sides tawny-olive rather than cinnamon-buff. Several individuals, however, are inseparable, and pending the receipt of a larger series the Colombian birds may for the present go with the Ecuadorian form.

**Material examined.**—Ecuador: Pichincha, 3; Hacienda Garzón, Pichincha, 2; Corazón, 1; mountains above Chambo, Prov. Chimbo, 1; "Gualera," 1; Chimborazo, 1; upper Rio Pita, 1; Cerro Huamani, 2; Sical, 1; Taraguacocha, 1.—Colombia, central Andes: Valle de las Pappas, 2; Santa Isabel, Quindio Andes, 6.

Brit. Mus., 6, p. 245, 1881—Ecuador; Berlepsch and Taczanowski, Proc. Zool. Soc. Lond., 1884, p. 285—Cechce, Ecuador; Goodfellow, Ibis, 1901, p. 313—Milligalli, Ecuador; Rhoads, Auk, 29, p. 143, 1912—below Rosario, Ecuador.

Range.—Páramo zone of Ecuador and central Andes of Colombia.

**Cistothorus platensis graminicola Taczanowski.<sup>1</sup> PERUVIAN GRASS WREN.**

*Cistothorus graminicola* Taczanowski, Proc. Zool. Soc. Lond., 1874, p. 130—Maraynioc, Dept. Junín, Peru (type in Warsaw Museum; cf. Sztolcman and Domaniewski, Ann. Zool. Mus. Pol. Hist. Nat., 6, p. 153, 1927); idem, Orn. Pér., 1, p. 527, 1884—Maraynioc and Pumamarca, Peru (monog.); Berlepsch and Stolzmann, Proc. Zool. Soc. Lond., 1896, p. 329—Ingapirca, Dept. Junín, Peru; idem, Orn., 13, p. 74, 1906—Puncuios, Puna of Idma, Urubamba, Peru.

*Cistothorus platensis graminicola* Hellmayr, Bull. Brit. Orn. Cl., 19, p. 75, 1907—Peru and northern Bolivia; idem, Nov. Zool., 28, p. 253, 1921—Peru and northwestern Bolivia (monog.); Chapman, Bull. U. S. Nat. Mus., 117, p. 102, 1921—Cedrobamba, Urubamba, Peru.

*Cistothorus humivagans* Taczanowski, Proc. Zool. Soc. Lond., 1874, p. 504—new name for *C. graminicola* Taczanowski; Maraynioc and Pumamarca, Peru.

*Cistothorus polyglottus* (not *Thryothorus polyglottus* Vieillot) Sclater and Salvin, Proc. Zool. Soc. Lond., 1879, p. 593—"Rhapaguaia," Bolivia; Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 105, 1880—part, Peru and Bolivia; Sharpe, Cat. Bds. Brit. Mus., 6, p. 245, 1881—part, Peru and Bolivia (Khapaguaia).

Range.—Puna zone of southern Peru (in depts. of Junín and Cuzco) and northwestern Bolivia (Khapaguaia).

**\*Cistothorus platensis lucidus Ridgway.<sup>2</sup> PANAMA MARSH WREN.**

<sup>1</sup> *Cistothorus platensis graminicola* Taczanowski: Very near *C. p. aequatorialis* and agreeing in general features, but slightly paler, and pileum conspicuously streaked with buff or fulvous. Wing (two males), 50–52; tail, 53; bill, 12–13.

An apparently immature specimen from Bolivia differs from two Peruvian adults by having the upper tail coverts much more distinctly barred with dusky and by more strongly striped crown.

*Material examined*.—Peru: Ingapirca, Junín, 1; Puncuios, Puna of Idma, Urubamba, Cuzco, 1.—Bolivia: "Khapaguaia," 1.

<sup>2</sup> *Cistothorus platensis lucidus* Ridgway resembles *C. p. alticola* in tail markings, but differs by brighter, more ochraceous-tawny rump and upper tail coverts; more ochraceous tail bands; broader white stripes in the interscapular region, and particularly by having the pileum narrowly streaked with buffy or whitish in the median, and more broadly so with blackish in the lateral portion. It is even closer to *C. p. aequatorialis*, but has shorter wings, more heavily streaked pileum, nearly pure white dorsal stripes, narrower and less buffy superciliaries, and much less ochraceous under parts.

*Material examined*.—Panama: Boquete, 3.—Costa Rica: Escazú, 5.

*Cistothorus polyglottus lucidus* Ridgway, Proc. Biol. Soc. Wash., 16, p. 169, 1903—Boquete, Chiriquí (type in coll. Bangs, now in Museum of Comparative Zoology, Cambridge, Mass.; cf. Bangs, Bull. Mus. Comp. Zool., 70, p. 320, 1930); idem, Bull. U. S. Nat. Mus., 50, Part 3, p. 486, 1904—Panama (monog.); Carriker, Ann. Carnegie Mus., 6, p. 771, 1910—Azahar de Cartago, La Estrella de Cartago, and Escazú, Costa Rica (crit., habits).

*Cistothorus elegans* (not of Sclater and Salvin) Salvin, Proc. Zool. Soc. Lond., 1870, p. 182—Bugaba, Chiriquí.

*Cistothorus polyglottus elegans* Bangs, Proc. New Engl. Zool. Cl., 3, p. 53, 1902—Boquete, Chiriquí.

*Cistothorus polyglottus* (not *Thryothorus polyglottus* Vieillot) Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 105, 1880—part, Chiriquí; Sharpe, Cat. Bds. Brit. Mus., 6, p. 245, 1881—part; Zeledón, Anal. Mus. Nac. Costa Rica, 1, p. 106, 1887—Costa Rica.

*Range*.—Subtropical zone of western Panama (Chiriquí) and Costa Rica.

1: Panama (Boquete, Chiriquí, 1).

**\**Cistothorus platensis elegans* Sclater and Salvin.<sup>1</sup> GUATEMALAN MARSH WREN.**

*Cistothorus elegans* Sclater and Salvin, Ibis, 1, p. 8, 1859—Lake of Dueñas, Guatemala (type now in British Museum); idem, Ibis, 1860, p. 30—Lake of Dueñas; Baird, Rev. Amer. Bds., 1, p. 146, 1864—Dueñas, Guatemala, and Orizaba, Mexico (crit.); Salvin and Godman, Biol. Centr.-Amer., Aves, 1, pl. 7, fig. 3, 1880—Dueñas (figure of type).

*Cistothorus stellaris* (not *Troglodytes stellaris* Naumann) Sclater, Cat. Coll. Amer. Bds., p. 22, 1862—part, spec. b, c, Dueñas; Sumichrast, Mem. Bost. Soc. N. H., 1, p. 545, 1869—near Orizaba, Vera Cruz.

*Cistothorus polyglottus* (os) (not *Thryothorus polyglottus* Vieillot) Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 105, 1880—part, Orizaba, Mexico, and Guatemala (Lake of Dueñas and summit of Volcan de Agua); Sharpe, Cat. Bds. Brit. Mus., 6, p. 245, 1881—part, Mexico and Guatemala; Chapman, Bull. Amer. Mus. N. H., 10, p. 24, 1898—Jalapa, Vera Cruz (crit., nest).

*Cistothorus polyglottus elegans* Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 484, 1904—eastern Mexico (in states of Vera Cruz and Chiapas), Guatemala, and British Honduras (monog.).

*Range*.—Eastern Mexico, in states of Vera Cruz (Orizaba, Jalapa) and Chiapas (Palenque, Ocuilapa); highlands of Guatemala (Lake of Dueñas and summit of Volcan de Agua); and British Honduras (western district).

2: British Honduras (southern pine ridge, western district, 2).

<sup>1</sup> *Cistothorus platensis elegans* Sclater and Salvin is much darker throughout than *C. p. lucidus*, and in certain features approaches the North American Short-billed Marsh Wren so closely that I have no hesitation whatever in treating *C. stellaris* as the most northerly representative of the *platensis* group.



**\*Cistothorus platensis stellaris (Naumann). SHORT-BILLED MARSH WREN.**

*Troglodytes stellaris* (Lichtenstein MS.) Naumann, *Naturg. Vög. Deutschl.*, 3, tab. facing p. 724, 1823—Carolina (type in Berlin Museum).

*Troglodytes brevirostris* Nuttall, *Man. Bds. East. U. S. and Canada*, 1, p. 436, 1832—eastern Massachusetts; Audubon, *Orn. Biog.*, 2, p. 427, 1834; idem, *Birds Amer.*, 8vo ed., 2, p. 138, pl. 124, 1841.

*Cistothorus stellaris* Sharpe, *Cat. Bds. Brit. Mus.*, 6, p. 243, 1881—eastern North America; Ridgway, *Bull. U. S. Nat. Mus.*, 50, Part 3, p. 482, 1904 (monog., full bibliog.).

*Range*.—Eastern North America, from southeastern Saskatchewan, central Manitoba, southern Ontario, and southern Maine south to Kansas, Missouri, Indiana, and northern Delaware; in winter from southern Illinois and New Jersey to Texas, Louisiana, and Florida; accidental in Colorado and Wyoming.

25: Saskatchewan (Quill Lake, 1); Minnesota (Kinbrae, 1); Wisconsin (Beaver Dam, 11); Illinois (Beach, 1; Deerfield, 1); Georgia (Sapelo Island, 1); southern Carolina (Yemassee, 1); Florida (Wilson, 5; Rosewood, 1; Nassau County, 1); Texas (Brownsville, 1).

**Cistothorus meridae Hellmayr.<sup>1</sup> MÉRIDA GRASS WREN.**

*Cistothorus platensis meridae* Hellmayr, *Bull. Brit. Orn. Cl.*, 19, p. 74, 1907—El Loro, Mérida, Venezuela (type in Tring Museum); Hartert, *Nov. Zool.*, 27, p. 505, 1920—El Loro; Hellmayr, l.c., 28, p. 254, 1921—Mérida (crit.).

*Cistothorus meridae* Chapman, *Amer. Mus. Nov.*, 2, p. 6, 1921—Sierra Nevada and Conejos, Mérida (crit.).

*Range*.—Páramo zone of western Venezuela, in states of Trujillo (Têta de Niquitao) and Mérida (El Loro, Conejos, Páramo de Frias, and Sierra Nevada).

<sup>1</sup> *Cistothorus meridae* Hellmayr, although originally described as a race of *C. platensis*, proves to be a very distinct species. From *C. p. alticola*, which, as has first been pointed out by Chapman (l.c.), also occurs in the Páramo region of Mérida, it may be separated at a glance by the exceedingly broad, pure white superciliary stripe, extending from the nasal plumes to the sides of the neck; slightly spotted instead of practically uniform pileum; much more (both with black and buffy white) variegated back; similarly marked (instead of uniform brown) rump; less rufescent wings and tail; much paler, dingy buff rather than tawny olive to sayal brown, and distinctly, though irregularly, dusky-barred sides; pale buff, dusky-streaked or barred under tail coverts; stronger bill; longer tarsi and wings; and decidedly shorter tail, the rectrices being at the same time much narrower and regularly barred on both webs with black and tawny-olive from base to tip. Wing, 48–50, (female) 46–47; tail, 35–38, once 40; tars., 18–19; bill, 12–13.

*Material examined*.—Trujillo: Têta de Niquitao, alt. 4,000 meters, 2.—Mérida: Páramo de Frias, 5; Conejos, alt. 3,000 meters, 2; El Loro, alt. 3,000 meters, 1; Sierra Nevada [de Mérida], alt. 3,000 meters, 1.

**\*Cistothorus apolinari** Chapman.<sup>1</sup> APOLINAR'S MARSH WREN.

*Cistothorus apolinari* Chapman, Bull. Amer. Mus. N. H., 33, p. 635, 1914—Suba Marshes, four miles from Bogotá, Colombia (type in the American Museum of Natural History, New York, examined); idem, l.c., 36, p. 518, 1917—Suba Marshes.

*Range*.—Temperate zone of the eastern Andes of Colombia (Suba Marshes, near Bogotá).

1: Colombia (Suba Marshes, Bogotá, 1).

**\*Cistothorus palustris palustris** (Wilson). LONG-BILLED MARSH WREN.

*Certhia palustris* Wilson, Amer. Orn., 2, p. 58, pl. 12, fig. 4, 1807—borders of the Schuylkill and Delaware [rivers, Philadelphia, Pennsylvania] (type in Peale's Museum).

*Thryothorus arundineus* (not *Troglodytes arundinaceus* Vieillot, 1807) Vieillot, Nouv. Dict. Hist. Nat., nouv. éd., 34, p. 58, 1819—new name for *Certhia palustris* Wilson.

*Cistothorus (Telmatodytes) palustris palustris* Bangs, Auk, 19, p. 351, 1902—salt and brackish marshes of Atlantic coast from Connecticut to Maryland and Virginia (crit.).

*Telmatodytes palustris palustris* Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 489, 1904—part, seacoast from New Jersey to Maryland and Virginia (monog., bibliog.).

*Range*.—Atlantic seacoast from Rhode Island to the Potomac Valley and coast of Virginia;<sup>2</sup> winters from New Jersey to South

<sup>1</sup> *Cistothorus apolinari* Chapman is another strongly marked species, whose occurrence, though at a lower altitude, in the east Colombian Andes, where *C. p. iamae* is also found, shows that in parts of the neotropical region, just as in North America, two species of Marsh Wren are met with. In adult plumage, *C. apolinari* differs from its relative by dull brown (Saccardo's umber to sepia) pileum; less buffy dorsal streaks; duller, less rufescent rump and tail; broader blackish barring of the rectrices; dingy grayish instead of bright buff lores; pale grayish, dusky-streaked sides of the head with a mere suggestion of a pale (buffy) grayish superciliary line behind the eye; grayish white under parts with a hardly perceptible faint buffy tinge; and tawny olive instead of deep cinnamon buff (unbarred) flanks and under tail coverts. The bill is very much longer and heavier, the tarsi and toes much stronger, wings and tail much longer, and the rectrices much broader. In juvenile plumage the top of the head is much deeper, mummy brown; throat and foreneck smoke-gray; sides of head darker gray without trace of a superciliary streak; the flanks deeper rufescent. Wing (three unsexed adults), 52–56; tail, 46–50; tars., 22–24; bill, 14.

In general coloration, *C. apolinari* is not unlike *C. p. alticola*, but much larger with heavier bill and feet, and the rectrices are much broader with the black bands much broader, wider apart, less numerous, as well as more regular.

*Material examined*.—Colombia: Suba Marshes, 5.

<sup>2</sup> Dingle and Sprunt (Auk, 49, p. 454, 1932) recently described *T. palustris waynei* from Mount Pleasant, South Carolina. This race is stated to differ from *C. p. palustris* by smaller size and darker general coloration.

Carolina and sparingly to Florida; casual in New Brunswick; accidental in Greenland.

1: Rhode Island (Providence, 1).

**\*Cistothorus palustris dissaëptus** Bangs. PRAIRIE MARSH WREN.

*Cistothorus (Telmatodytes) palustris dissaëptus* Bangs, Auk, **19**, p. 352, 1902—Wayland, Massachusetts (type in coll. Bangs, now in Museum of Comparative Zoology, Cambridge, Mass.; cf. Bangs, Bull. Mus. Comp. Zool., **70**, p. 320, 1930).

*Telmatodytes palustris iliacus* Ridgway, Proc. Biol. Soc. Wash., **16**, p. 110, 1903—Wheatland, Knox County, Indiana (type in U. S. National Museum); idem, Bull. U. S. Nat. Mus., **50**, Part 3, p. 492, 1904 (monog., full bibliog.).

*Telmatodytes palustris palustris* Ridgway, Bull. U. S. Nat. Mus., **50**, Part 3, p. 489, 1904—northeastern United States (part).

**Range.**—Great Plains and Prairie district of the central Mississippi Valley east to Ontario, New York, and New England; winters southward in Mexico to Jalisco, Zacatecas and Vera Cruz, and along the Gulf coast to western Florida; casual in migration in Virginia, North Carolina, and South Carolina.

46: Massachusetts (Wayland, 1); Connecticut (East Hartford, 5); New York (Cayuga, 3); North Carolina (Raleigh, 1); South Carolina (Mount Pleasant, 2); Georgia (Egg Island, 1); Florida (Rosewood, 1; Nassau County, 1); Indiana (Davis, 1; English Lake, 1); Illinois (Chicago, 6; Beach, 2; Libertyville, 2; Lake Forest, 1; Englewood, 1); Wisconsin (Fox Lake, 4; Beaver Dam, 13).

**\*Cistothorus palustris griseus** Brewster.<sup>1</sup> WORTHINGTON'S MARSH WREN.

*Cistothorus palustris griseus* Brewster, Auk, **10**, p. 216, 1893—Sapelo Island, Georgia (type in coll. W. Brewster, now in Museum of Comparative Zoology, Cambridge, Mass.; cf. Bangs, Bull. Mus. Comp. Zool., **70**, p. 321, 1930).

*Telmatodytes palustris griseus* Ridgway, Bull. U. S. Nat. Mus., **50**, Part 3, p. 499, 1904 (monog., full bibliog.); Wayne, Contr. Charleston Museum, **1**, p. 186, 1910 (habits, range, etc.); Bailey, Bds. Fla., p. 138, 1925—Florida (breeding).

**Range.**—South Atlantic coast region from South Carolina (Santee River) to northern Florida.

12: Georgia (Sapelo Island, 1); Florida (Nassau County, 9; Amelia Island, 1; New Berlin, 1).

<sup>1</sup> *Cistothorus palustris griseus* Brewster: Most closely related to *C. p. marianae*, but much paler and grayer; sides and flanks usually barred with dusky. The most distinct member of this group.

**\*Cistothorus palustris marianae** Scott.<sup>1</sup> MARIAN'S MARSH WREN.

*Cistothorus marianae* Scott, Auk, 5, p. 188, 1888—Tarpon Springs, southwestern Florida (type in coll. W. E. D. Scott, now in the American Museum of Natural History, New York).

*Telmatodytes palustris marianae* Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 497, 1904 (monog., full bibliog.); Wayne, Contr. Charleston Mus., 1, p. 188, 1910—South Carolina (winter); Howell, Bds. Alabama, p. 338, 1924—coast of Alabama; Wheeler, Wils. Bull., 43, pp. 247-267, 1931—Florida and Alabama (range, nest, eggs).

*Range*.—The Gulf coast from Charlotte Harbor, Florida, to Mississippi.

10: South Carolina (Mount Pleasant, 3); Florida (Tarpon Springs, 4; Nassau County, 1; New Berlin, 1; Banana River, 1).

**\*Cistothorus palustris thryophilus** (Oberholser).<sup>2</sup> LOUISIANA MARSH WREN.

*Telmatodytes palustris thryophilus* Oberholser, Proc. Biol. Soc. Wash., 19, p. 149, 1903—Sabine, Texas (type in U. S. National Museum); Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 498, 1904—coast of Louisiana and Texas (monog., full bibliog.).

*Range*.—Coast district of Louisiana and Texas.

2: Louisiana (Buras, 2).

**\*Cistothorus palustris laingi** (Harper).<sup>3</sup> ALBERTA MARSH WREN.

*Telmatodytes palustris laingi* Harper, Occas. Pap. Bost. Soc. Nat. Hist., 5, p. 221, 1926—Athabasca Delta, main branch, Alberta (type in Museum of Comparative Zoology, Cambridge, Mass.); Bangs, Bull. Mus. Comp. Zool., 70, p. 321, 1930 (note on type).

*Telmatodytes palustris iliaceus* Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 492, 1904—part, Alberta and Saskatchewan, probably to Manitoba.

*Range*.—Breeds in Alberta and western Saskatchewan, probably east to Manitoba.

1: Alberta (Beaver Hill Lake, 1).

<sup>1</sup>*Cistothorus palustris marianae* Scott: Similar to *C. p. palustris*, but smaller and darker. A well-defined race.

Specimens from Alabama, while not quite the same as breeding birds from the west coast of Florida, are, according to A. H. Howell (in litt.), nearer to *marianae* than to *thryophilus*.

<sup>2</sup>*Cistothorus palustris thryophilus* (Oberholser): Similar to *C. p. palustris* but smaller and darker; similar to *C. p. marianae*, but averaging smaller and coloration paler, except sides and flanks which are slightly darker and more extensively brownish-ochraceous. A clearly distinct race.

<sup>3</sup>*Cistothorus palustris laingi* (Harper): Similar to *C. p. palustris*, but very much paler throughout; median area on forecrown much larger and more distinct. Judging from a single example, this seems to be a good race.

**\*Cistothorus palustris plesius** Oberholser.<sup>1</sup> WESTERN MARSH WREN.

*Cistothorus palustris plesius* Oberholser, Auk, 14, p. 188, 1897—Fort Wingate, New Mexico (type in U. S. National Museum).

*Telmatodytes palustris plesius* Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 494, 1904 (monog., full bibliog.); Swarth, Auk, 34, p. 314, 1917 (monog.); Brooks and Swarth, Pac. Coast Avifauna, 17, p. 114, 1925—southern mainland of British Columbia, east of the Cascades; Grinnell, Univ. Calif. Pub. Zool., 32, p. 219, 1928—Lower California.

*Range.*—Breeds mainly in Upper Austral zone from central British Columbia to New Mexico and from central Washington and Oregon and northeastern California east to central Colorado; winters from California and central Texas to Cape San Lucas, Sinaloa, and Tamaulipas.

2: Arizona (Phoenix, 1); New Mexico (Members, 1).

**\*Cistothorus palustris paludicola** Baird.<sup>2</sup> TULE WREN.

*Cistothorus palustris* var. *paludicola* Baird, Rev. Amer. Bds., 1, p. 148, 1864—Shoalwater Bay, Washington (type in U. S. National Museum).

*Telmatodytes palustris paludicola* Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 496, 1904—part (monog., full bibliog.); Swarth, Auk, 34, p. 312, 1917 (monog.); Brooks and Swarth, Pac. Coast Avifauna, 17, p. 114, 1925—southwestern British Columbia; Grinnell, Univ. Calif. Pub. Zool., 32, p. 218, 1928—Lower California.

*Range.*—Breeds in Transition and Upper and Lower Austral zones in the coast district of British Columbia to southern California; winters from Washington south to Cape San Lucas, Lower California, and northwestern Sonora.

7: British Columbia (Lulu Island, 1; Sea Island, 1); California (Clipper Gap, 1; Palo Alto, 2; Santa Clara, 1; Pasadena, 1).

**\*Cistothorus palustris aestuarinus** (Swarth).<sup>3</sup> SUISUN MARSH WREN.

*Telmatodytes palustris aestuarinus* Swarth, Auk, 34, p. 310, 1917—Grizzly Island, Solano County, California (type in Museum of Vertebrate Zoology,

<sup>1</sup> *Cistothorus palustris plesius* Oberholser: Similar to *C. p. palustris*, but slightly paler; upper tail coverts more or less barred with dusky; middle rectrices more distinctly barred; sides and flanks pale broccoli brown (instead of cinnamon); under parts generally darker, less white.

<sup>2</sup> *Cistothorus palustris paludicola* Baird: Similar to *C. p. palustris*, but tail coverts (especially the upper ones) barred; bill smaller; tail longer; sides and flanks deeper brown; differs from *C. p. plesius* by smaller size and darker coloration.

<sup>3</sup> *Cistothorus palustris aestuarinus* (Swarth): Similar to *C. p. paludicola*, but larger and darker.

Berkeley); Grinnell, Univ. Calif. Pub. Zool., 32, p. 219, 1928—Colorado Delta of Lower California (crit.); van Rossem, Trans. San Diego Soc. N. H., 6, p. 273, 1931—El Doctór, Sonora.

*Telmatodytes palustris paludicola* Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 496, 1904—part.

**Range.**—West-central California, breeding at the confluence of the Sacramento and San Joaquin rivers, in Napa and Solano counties, and thence south to Tulare County; in winter spreading to Oregon, southern California, Lower California,<sup>1</sup> and Sonora.

2: California (Redwood City, 2).

### Genus HELEODYTES Cabanis

*Campylorhynchus* (not *Campylirhynchus* "Megerle")<sup>2</sup> Spix, Av. Bras., 1, p. 77, 1824—type, by subs. desig. (Gray, List Gen. Bds., p. 25, 1840), "*C. variegatus* (Gm.) n.=*C. scolopaceus* Spix=*Op. turdinus* Wied."

*Heleodytes* Cabanis, Mus. Hein., 1, p. 80, 1851—type, by subs. desig. (Gray, Cat. Gen. Subgen. Bds., p. 26, 1855), *Furnarius griseus* Swainson.

*Buglodytes* Bonaparte, Compt. Rend. Acad. Sci. Paris, 38, p. 57, 1854—type, by monotypy, *Buglodytes albicilius* Bonaparte.

### \**Heleodytes griseus* (Swainson). GUIANAN CACTUS WREN.

*Furnarius griseus* Swainson, Anim. Menag., p. 325, Dec. 31, 1837—savannas of Guiana (type in Cambridge (Engl.) Museum).

*Heleodytes griseus* Cabanis, in Schomburgk, Reisen Brit. Guiana, 3, p. 674, 1848—savannas of British Guiana; idem, Mus. Hein., 1, p. 80, 1851—Guiana; Selater, Cat. Coll. Amer. Bds., p. 16, 1862—"Trinidad"; Pelzeln, Orn. Bras., 1, p. 48, 1868—Forte do São Joaquim, Rio Branco; Ihering and Ihering, Cat. Faun. Braz., 1, p. 322, 1907 (range); Penard, Vog. Guyana, 2, p. 519, 1910—"savannas of the interior"; Cherrie, Sci. Bull., Mus. Brookl. Inst., 2, p. 143, 1916—Orinoco region (habits, nest, eggs); Chubb, Bds. Brit. Guiana, 2, p. 353, 1921—Takutu River, British Guiana; (?) Delacour, Ibis, 1923, p. 148—northern parts of Venezuelan llanos.

*Campylorhynchus griseus* Berlepsch and Hartert, Nov. Zool., 9, p. 4, 1902—Altagracia and Caicara, Orinoco River (nest descr.).

*Campylorhynchus bicolor* (not of Pelzeln) Sharpe, Cat. Bds. Brit. Mus., 6, p. 187, 1881—British Guiana; Salvin, Ibis, 1885, p. 199—British Guiana.

*Buglodytes albicilius* (not of Bonaparte) Selater, Proc. Zool. Soc. Lond., 24, p. 97, 1856—British Guiana and "Trinidad."

**Range.**—Savannas of Venezuela (Altagracia and Caicara, on the south bank of the Orinoco; Caura River), British Guiana

<sup>1</sup> Grinnell (l.c.) records specimens taken at breeding dates in the Colorado Delta region, with evidences (but no proof) of their breeding at this point. Apparently no breeding records exist from south of Tulare Lake.

<sup>2</sup> In Dejean, Cat. Coll. Coléopt., [ed. 2], p. 84, 1821. Cf. Palmer, Auk, 10, p. 86, 1898.

(Quonga, Takutu River), and extreme northern Brazil (upper Rio Branco).<sup>1</sup>

9: Brazil (Bôa Vista, Rio Branco, 4; Serra da Lua, near Bôa Vista, 5).

**Heleodytes minor minor** Cabanis.<sup>2</sup> LESSER CACTUS WREN.

*Heleodytes minor* Cabanis, Mus. Hein., 1, p. 80, 1851—Venezuela (type in Heine Museum, Halberstadt, examined); Sclater, Proc. Zool. Soc. Lond., 24, p. 97, 1856—"Trinidad"; idem, Cat. Coll. Amer. Bds., p. 16, 1862—"Trinidad" (crit.); Finsch, Proc. Zool. Soc. Lond., 1870, p. 563—"Trinidad" (crit.); Penard, Vog. Guyana, 2, p. 520, 1910—"Trinidad," Venezuela, and "Guiana"; Stone, Proc. Acad. Nat. Sci. Phila., 65, p. 206, 1913—Guinipa Village, Delta Amacuro, Venezuela; Cherrie, Sci. Bull., Mus. Brookl. Inst., 2, p. 145, 1916—Ciudad Bolivar and Agua Salada de Ciudad Bolivar, Orinoco River, and Maripa, Caura.

*Campylorhynchus minor* Sharpe, Cat. Bds. Brit. Mus., 6, p. 187, 1881—"Trinidad" and Venezuela; Berlepsch and Hartert, Nov. Zool., 9, p. 5, 1902—Ciudad Bolivar, Orinoco River, and Caripé, Sucre, Venezuela.

*Range*.—Eastern Venezuela, from Sucre (Caripé) south to the lower Orinoco (Ciudad Bolivar) and its affluent, the Caura River (Maripa).<sup>3</sup>

**\*Heleodytes minor albicilius** (Bonaparte).<sup>4</sup> WHITE-BROWED CACTUS WREN.

<sup>1</sup> Eleven specimens from the middle Orinoco (Altagracia, Caicara) and the Caura Valley agree with a single adult from Quonga, British Guiana, and a series from the Rio Branco. The locality "Trinidad" quoted by Slater is erroneous.

*Material examined*.—British Guiana: Quonga, 1 (female adult, Nov. 7, 1887. H. Whitely, British Museum).—Brazil: Forte do São Joaquim, Rio Branco, 3; near Bôa Vista, 9.—Venezuela: Altagracia, 7; Caicara, 3; Caura River, 1.

<sup>2</sup> *Heleodytes minor* differs from *H. griseus* by having the hindneck and upper back blackish brown like the crown; the posterior upper parts as well as the edges to the wing coverts deep russet instead of buffy brown; and the flanks and under tail coverts strongly washed with buff. Wing (adult male), 92–93; tail, 87–91; bill, 28–29.

This bird seems to be specifically distinct from *H. griseus*, both being found along the Caura River. The type agrees with specimens from Ciudad Bolivar, while a single adult from Caripé, Sucre, merely differs by having the blackish brown color above restricted to pileum and hindneck.

*Material examined*.—Venezuela: Ciudad Bolivar, 3; Caripé, Sucre, 1; unspecified, 1 (the type).

<sup>3</sup> "Trinidad" is erroneously included by authors in its range. No representative of the genus occurs on that island.

<sup>4</sup> *Heleodytes minor albicilius* (Bonaparte) differs from the typical form chiefly by the much deeper rufous brown coloration of the lower back, rump, and upper tail coverts. The brownish bars at the base of the tail are either absent or but faintly suggested. Wing (adult males), 89–93, once 96; tail, 85–89; bill, 25–29.

Birds from western Venezuela appear to be inseparable from Santa Martán and other north Colombian specimens, and two skins from the lower Magdalena (Calamar and near Puerto Berrio) are unquestionably also referable to the same

*Buglodytes albicilius* Bonaparte, Compt. Rend. Acad. Sci. Paris, 38, p. 57, 1854—Santa Marta (type in British Museum examined<sup>1</sup>); idem, Not. Orn. Coll. Delattre, p. 40, 1854—Santa Marta; Selater, Proc. Zool. Soc. Lond., 24, p. 97, 1856—part, Santa Marta (note on type in British Museum).

*Heleodytes griseus* (not of Swainson) Selater and Salvin, Proc. Zool. Soc. Lond., 1870, pp. 780, 783—"southeast" of Mérida (crit.; spec. in British Museum examined); Wyatt, Ibis, 1871, p. 321—Santa Marta; Allen, Bull. Amer. Mus. N. H., 13, p. 180, 1900—Santa Marta, Cacagualito, and Bonda; idem, l.c., 21, p. 294, 1905—Bonda (nest and eggs).

*Campylorhynchus griseus* Salvin and Godman, Ibis, 1880, p. 116—Santa Marta; Sharpe, Cat. Bds. Brit. Mus., 6, p. 186, 1881—"New Granada."

*Heleodytes minor bicolor* (not of Pelzeln) Chapman, Bull. Amer. Mus. N. H., 36, p. 509, 1917—Turbaco and La Playa (near Cartagena), Calamar, Carpenteria, and Remolino, lower Magdalena, and (?) Honda, Colombia.

*Heleodytes minor albicilius* Todd and Carriker, Ann. Carnegie Mus., 14, p. 424, 1922—Bonda, Mamatoco, Fundación, Dibulla, Rio Hacha, and Tucurínca, Santa Marta region (crit., habits); Darlington, Bull. Mus. Comp. Zool., 71, p. 409, 1931—Rio Frio (Santa Marta), Colombia (habits, nest).

**Range.**—Tropical zone of Colombia (Caribbean coast; Santa Marta region; lower Magdalena Valley) and the adjoining section of Venezuela (Zulia, Mérida, Trujillo).

8: Colombia (La Playa, near Barranquilla, 1); Venezuela (Encontrados, Zulia, 3; Catatumbo River, Zulia, 1; Maracaibo, 1; Rio Aurare, Zulia, 1; La Ceiba, Trujillo, 1).

### ***Heleodytes minor bicolor* Pelzeln.<sup>2</sup> BICOLORED CACTUS WREN.**

*Heleodytes bicolor* Pelzeln, Ibis, (3), 5, p. 330, 1875—"Spanish Guiana"—"Bogotá" collections (type in Vienna Museum examined).

**form.** In worn plumage *H. m. albicilius* is barely distinguishable from typical *minor*.

**Additional material examined.**—Colombia: Turbaco, 1; La Playa, 2; Sinu River, Dept. Bolívar, 1; Santa Marta, 3 (including the type); Mamatoco, 5; Calamar, Magdalena, 1; Carpenteria, near Puerto Berrio, Magdalena, 1.—Venezuela: "southeast of Mérida," 1.

<sup>1</sup> Bangs (Bull. Mus. Comp. Zool., 70, p. 311, 1930) lists a specimen in the Lafresnaye Collection (No. 2,597) as "the type." It will be hard to decide which one has better claims. The British Museum example is stated to have been received from Verreaux in 1854.

<sup>2</sup> *Heleodytes minor bicolor* Pelzeln: Similar to *H. m. albicilius*, but dorsal surface nearly uniform blackish with mere traces, if any, of rufescent edges to wing coverts, secondaries and rectrices; rump and upper tail coverts but slightly variegated with dull rufescent or brownish margins instead of being bright rufous brown. Size apparently somewhat larger. Wing (unsexed adults), 90–100; tail, 85–98; bill, 24–29. The type, sexed as "male," measures: wing, 100; tail, 98; bill, 28.

There can be no doubt as to *H. bicolor* being an excellent form of the *minor* group, the absence of the bright rufous brown uropygial area and the nearly



*Heleodytes griseus* (not *Furnarius griseus* Swainson) Baird, Rev. Amer. Bds., 1, p. 96, 1864—Bogotá (crit.).

*Range*.—Colombia (only known from native Bogotá collections).

***Heleodytes albo-brunneus albo-brunneus* Lawrence. WHITE-HEADED CACTUS WREN.**

*Heleodytes albo-brunneus* Lawrence, Ibis, 4, p. 10, 1862—on the line of the Panama Railroad, near the summit of the Atlantic slope (type now in the American Museum of Natural History, New York); idem, Ann. Lyc. Nat. Hist. N. Y., 7, p. 470, 1862—Panama Railroad; Sclater and Salvin, Proc. Zool. Soc. Lond., 1864, p. 344—Isthmus of Panama; Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 503, 1904—Isthmus of Panama, north to Veragua (monog.).

*Campylorhynchus albibrunneus* Baird, Rev. Amer. Bds., 1, p. 98, 1864—Frijole, Panama Railroad (crit.); Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 63, 1880—"Veraguas," Frijole, Lion Hill, and San Pablo, Panama Railroad; Sharpe, Cat. Bds. Brit. Mus., 6, p. 188, 1881—Isthmus of Panama (monog.).

*Range*.—Western Panama (Lion Hill, Frijole, and San Pablo, Panama Railroad; (?) Veraguas).<sup>1</sup>

***Heleodytes albo-brunneus harterti* Berlepsch.<sup>2</sup> HARTERT'S WHITE-HEADED CACTUS WREN.**

*Heleodytes harterti* Berlepsch, Ornith., 14, p. 347, 1907—San José, Rio Dagua, Colombia (type in Berlepsch Collection, now in Frankfurt Museum, examined).

*Heleodytes albobrunneus harterti* Hellmayr, Proc. Zool. Soc. Lond., 1911, p. 1088—El Tigre, Rio Tamaná, Colombia (crit.); Chapman, Bull. Amer.

uniform blackish brown wings being its most distinctive features. The conspicuous rufous margins to the upper wing coverts and secondaries, which in *H. m. minor* and *H. m. albicilius* are well pronounced even in worn plumage, are but rarely suggested by narrow fringes in *H. m. bicolor*, the latter having, besides, a much blacker tail.

The distribution of this form is altogether uncertain. The twenty-three specimens, including the type which we have examined, are all without exception native-made "Bogotá" skins. Perhaps it replaces *H. m. albicilius* in the upper Magdalena Valley, and it may be that the bird from Honda recorded by Chapman as *H. m. bicolor* actually belongs to the present race. We have no material from Honda, but a specimen from as far south as Carpenteria (near Puerto Berrio) is wholly typical of the rufous-rumped *H. m. albicilius*.

<sup>1</sup> The five specimens examined are all from the Panama Railroad. Its occurrence in Veraguas remains to be confirmed.

<sup>2</sup> *Heleodytes albo-brunneus harterti* Berlepsch: Differs from the typical race in much darker, blackish brown, coloration of the upper parts and tibial feathers, and more coarsely spotted under tail coverts. In worn plumage not distinguishable with certainty. Wing, 88–92, (female) 83; tail, 87–88, (female) 78; bill, 23–24, (female) 20.

*Material examined*.—Panama: El Real, 1.—Colombia: El Tigre, Rio Tamaná, 2; San José, Rio Dagua, 2 (including the type).

Mus. N. H., 36, p. 510, 1917—Rio Salaquí, Dabeiba (Rio Sucio), Bagado and La Vieja (Rio Atrato), San José, Colombia, and El Real, Cituro, and Tapaliza, Panama (crit., plumages); Griscom, Bull. Mus. Comp. Zool., 69, p. 181, 1929—El Real and Cana, Darien.

*Range*.—Eastern Panama (Darien) south to Bahia del Chocó, western Colombia.

**\*Heleodytes turdinus turdinus (Wied). SPOTTED CACTUS WREN.**

*Opetiorhynchus turdinus* Wied, Reise Bras., 2, p. 148, 1821—Rio Catolé, a tributary of the Rio Pardo, southern Bahia (type now in the American Museum of Natural History, New York).

*Opetiorhynchus turdinus* Wied, Beitr. Naturg. Bras., 3, (2), p. 673, 1831—Rio Doce, Espirito Santo, and Rios Belmonte and Catolé, Bahia.

*Turdus scolopaceus* Lichtenstein, Verz. Doubl. Berliner Mus., p. 39, 1823—Bahia (type in Berlin Museum).

*Campylorhynchus scolopaceus* Spix, Av. Bras., 1, p. 77, pl. 79, fig. 1, 1824—"Rio de Janeiro" (errore); Lafresnaye, Rev. Zool., 9, p. 94, 1846—Bahia; Sclater, Proc. Acad. Nat. Sci. Phila., 8, p. 264, 1856—Brazil.

*Picolaptes scolopaceus* Lafresnaye, Mag. Zool., 5, cl. 2, pl. 46, 1835—Bahia.

*Kampylorhynchus scolopaceus* Lesson, Rev. Zool., 6, p. 326, 1843 (ex Spix, pl. 79, fig. 1).

*Campylorhynchus variegatus* (not *Turdus variegatus* Gmelin<sup>1</sup>) Cabanis, Mus. Hein., 1, p. 80, 1850—Brazil; Burmeister, Syst. Uebers. Th. Bras., 3, p. 131, 1856—coast region of Brazil north of the Rio Parahyba; Sclater, Cat. Coll. Amer. Bds., p. 16, 1862—Bahia; Sharpe, Cat. Bds. Brit. Mus., 6, p. 188, 1881—Bahia and "Amazonia" (errore); Allen, Bull. Amer. Mus. N. H., 2, p. 213, 1889—Brazil (note on Wied's types).

*Heleodytes turdinus* Hellmayr, Abhandl. 2. Kl. Bayr. Akad. Wiss., 22, No. 3, p. 626, 1906 (crit., nomencl., range); Ihering and Ihering, Cat. Faun. Braz., 1, p. 321, 1907—part, Bahia and Espirito Santo (Rio Doce).

*Heleodytes turdinus turdinus* Hellmayr, Field Mus. Nat. Hist., Zool. Ser., 12, p. 253, 1929—Barra do Corda, Maranhão, and Santo Antonio (Bôa Vista), Goyaz (crit.).

*Range*.—Eastern Brazil, from Maranhão, south to Espirito Santo (Rio Doce).

6: Brazil (Barra do Corda, Maranhão, 2; Santo Antonio, Goyaz, 4).<sup>2</sup>

<sup>1</sup> *Turdus variegatus* Gmelin (Syst. Nat., 1, (2), p. 817, 1789), exclusively based upon "la seconde [espèce de Grive]" of Fermin (Descr. Surinam, 2, p. 188, 1769), an unidentifiable bird from Dutch Guiana, certainly has no affinity whatever with the Cactus Wren of eastern Brazil.

<sup>2</sup> Additional specimens examined.—Bahia, 6; unspecified, 3.

**Heleodytes turdinus hypostictus (Gould).<sup>1</sup> AMAZONIAN SPOTTED CACTUS WREN.**

*Campylorhynchus hypostictus* Gould, Proc. Zool. Soc. Lond., 23, p. 68, May, 1855—River Ucayali, Peru (type in Gould Collection, probably lost); Selater, Proc. Acad. Nat. Sci. Phila., 8, p. 264, 1856—Ucayali, Peru (diag.); Selater and Salvin, Proc. Zool. Soc. Lond., 1866, p. 178—upper Ucayali, Peru; idem, l.c., 1873, p. 256—Cashiboya, Nauta, and Santa Cruz, Peru; Sharpe, Cat. Bds. Brit. Mus., 6, p. 189, 1881—upper Amazonia to Colombia; Taczanowski, Orn. Pér., 1, p. 506, 1884—Cashiboya, Nauta, Santa Cruz, Peru; Allen, Bull. Amer. Mus. N. H., 2, p. 78, 1889—lower Beni and Falls of the Madeira, Bolivia; Berlepsch, Journ. Orn., 37, p. 292, 1889—Tarapoto, lower Huallaga, Peru; Riker and Chapman, Auk, 7, p. 137, 1890—Santarém.

*Campylorhynchus striaticollis* Selater, Proc. Zool. Soc. Lond., 25, "1857," p. 272, pub. Jan., 1858—Bogotá (type now in British Museum); idem, Cat. Coll. Amer. Bds., p. 16, 1862—Bogotá.

*Campylorhynchus variegatus* (not *Turdus variegatus* Gmelin) Pelzeln, Orn. Bras., 1, p. 49, 1868—Borba, Rio Madeira.

*Heleodytes hypostictus* Ihering, Rev. Mus. Paul., 6, p. 430, 1905—Rio Jurua; Sneath, Journ. Orn., 56, p. 7, 1908—Antimary, Rio Acre, and Ponto Alegre and Monte Verde, Rio Purús; idem, l.c., p. 520, 1908—Arumatheua, Rio Tocantins; idem, Bol. Mus. Goeldi, 8, p. 486, 1914—Rios Tocantins (Arumatheua), Xingú (Forte Ambé), Tapajós (Pimental), Purús (Monte Verde, Ponto Alegre), and Acre (Antimary), Brazil.

*Heleodytes turdinus hypostictus* Hellmayr, Abhandl. 2. Kl. Bayr. Akad. Wiss., 22, No. 3, p. 627, 1906—Borba and eastern Ecuador (crit.); Ihering and Ihering, Cat. Faun. Braz., 1, p. 321, 1907—Rio Jurua (range); Hellmayr, Nov. Zool., 14, p. 345, 1907—Humaythá, Rio Madeira; idem, l.c., 17, p. 261, 1910—Manicoré and Calama, Rio Madeira; Chapman, Bull. Amer. Mus. N. H., 36, p. 510, 1917—La Morelia and Florencia, Colombia; idem, l.c., 55, p. 563, 1926—Zamora, Macas, Rio Suno, and below San José, Ecuador.

*Heleodytes turdinus* (not *Opetiorynchos turdinus* Wied) Ihering and Ihering, Cat. Faun. Braz., 1, p. 321, 1907—part, Santarém.

<sup>1</sup>*Heleodytes turdinus hypostictus* (Gould) differs by more heavily spotted under parts, the spots extending over the greater part of the throat, the latter being plain white in the typical race. Colombian birds (*striaticollis*) do not appear to be properly separable. They are possibly slightly more ashy above than those from Peru, but Ecuadorian specimens are extremely variable in this respect. The white spots on the hindneck vary individually. Of four birds from the Rio Madeira, one has none at all, in another they are faintly suggested, and the two others show well-developed markings. Similar variation obtains in the Ecuadorian series, whereas two Bogotá skins have no trace of spots. Carriker (Proc. Acad. Nat. Sci. Phila., 85, p. 32, March, 1933) has recently described *H. t. chanchamayoensis* from San Juan de Perené, Junín, but its status cannot be determined until a satisfactory series of topotypical *hypostictus* from the Ucayali becomes available.

**Material examined.**—Colombia: Rio Caquetá, 1; Bogotá, 3.—Ecuador: El Loreto, 4; Napo, 1.—Peru: Tarapoto, 1; Yahuar Mayo, Carabaya, 1.—Brazil: Antimary, Rio Acre, 1; Ponto Alegre, Rio Purús, 2; Rio Madeira, Manicoré, 1; Calama, 1; Borba, 2.

*Range*.—Amazonia, from the eastern base of the eastern Andes of Colombia through eastern Ecuador and Peru south to northern Bolivia, and south of the Amazon throughout Brazil east to the Tocantins River.

**\**Heleodytes unicolor* (Lafresnaye).<sup>1</sup> BROWN CACTUS WREN.**

*Campylorhynchus unicolor* Lafresnaye, Rev. Zool., 9, p. 93, 1846—Guarayos, Bolivia (type now in Museum of Comparative Zoology, Cambridge, Mass.; cf. Bangs, Bull. Mus. Comp. Zool., 70, p. 311, 1930); Selater, Proc. Acad. Nat. Sci. Phila., 8, p. 264, 1856—Bolivia; idem, Cat. Coll. Amer. Bds., p. 16, 1862—Bolivia; Pelzeln, Orn. Bras., 1, p. 49, 1868—Cuyabá, Matto Grosso; Selater and Salvin, Proc. Zool. Soc. Lond., 1879, p. 592—Bolivia (ex d'Orbigny); Sharpe, Cat. Bds. Brit. Mus., 6, p. 190, 1881—Bolivia and western Brazil; Ridgway, Proc. Bost. Soc. N. H., 23, p. 382, 1888—Bolivia (note on type;=adult); Allen, Bull. Amer. Mus. N. H., 3, p. 343, 1891—Uacuryzál, near Corumbá, Matto Grosso; Salvadori, Boll. Mus. Zool. Torino, 15, No. 378, p. 3, 1900—Urucúm, Matto Grosso.

*Campylorhynchus unicoloroides* Lafresnaye, Rev. Zool., 9, p. 316, 1846—Bolivia (type now in Museum of Comparative Zoology, Cambridge, Mass.; cf. Bangs, Bull. Mus. Comp. Zool., 70, p. 311, 1930;=juv.); Selater, Proc. Acad. Nat. Sci. Phila., 8, p. 264, 1856—Bolivia (ex Lafresnaye); Ridgway, Proc. Bost. Soc. N. H., 23, p. 382, 1888—Bolivia (note on type).

*Campylorhynchus pallidus* Giebel, Zeits. Ges. Naturw., 31, p. 13, 1868—Santa Cruz, Bolivia (type in Halle Museum examined).

*Picolaptes scolopaceus* (not *Turdus scolopaceus* Lichtenstein) Lafresnaye and d'Orbigny, Syn. Av., 2, in Mag. Zool., 8, cl. 2, p. 16, 1838—Guarayos, Bolivia.

*Anumbius scolopaceus* d'Orbigny, Voy. Amér. Mérid., Ois., p. 256, 1839—Chiquitos, Santa Cruz, Guarayos, and Yuracares, Bolivia.

*Heleodytes unicolor* Ihering and Ihering, Cat. Faun. Braz., 1, p. 322, 1907 (range); Dabbene, Anal. Mus. Nac. Hist. Nat. Buenos Aires, 18, p. 355, 1910—Cordoba (!); Lima, Rev. Mus. Paul., 12, (2), p. 94, 1920—Matto Grosso; Laubmann, Wissens. Erg. Deuts. Gran Chaco Exp., Vogel, p. 313, 1930—San José, Santa Cruz, Bolivia; Naumburg, Bull. Amer. Mus. N. H., 60, p. 321, pl. 16, 1930—Descalvados, Urucúm, Agua Blanca de Corumbá, Tapirapoan, Palmiras, and Rio São Lourenço, Matto Grosso (habits, nest).

<sup>1</sup>*Heleodytes unicolor* (Lafresnaye) is rather an isolated species. It is probably nearest to *H. turdinus*, but has a much smaller, slenderer bill and differs widely in coloration. The lower surface lacks the dusky spotting except on the tail coverts, and its ground-color is strongly buffy instead of white; the superciliaries and sides of the head are much more buffy; the back and wings nearly uniform, without distinct cross-markings, etc.

Birds from Matto Grosso and Bolivia are perfectly alike.

*Material examined*.—Bolivia: Santa Cruz, 2; San José, 5; Chiquitos, 1; Guarayos, 2.—Matto Grosso: Cuyabá, 6; Descalvados, 4; Urucúm, 7; Agua Blanca de Corumbá, 1; Tapirapoan, 1; Palmiras, 1; Rio São Lourenço, 1.

*Range*.—Lowlands of eastern Bolivia and Matto Grosso, Brazil.<sup>1</sup>  
3: Brazil, Matto Grosso (Descalvados, 1; Urucúm de Corumbá, 2).

**\*Heleodytes fasciatus fasciatus** (Swainson). BANDED WREN.

*Furnarius fasciatus* Swainson, Anim. Menag., p. 351, Dec. 31, 1837—Peru (type now in Cambridge (Engl.) Museum; fide N. B. Kinnear, in litt.).

*Campylorhynchus fasciatus* Taczanowski, Proc. Zool. Soc. Lond., 1880, p. 190—Callacate, Peru; Sharpe, Cat. Bds. Brit. Mus., 6, p. 201, 1881—San Pedro, northern Peru; Taczanowski, Orn. Pér., 1, p. 505, 1884—Callacate; Salvin, Nov. Zool., 2, p. 2, 1895—Viña, Huamachuco, and Malca, Cajabamba.

*Heleodytes fasciatus* Bangs and Noble, Auk, 35, p. 457, 1918—Huancabamba, Dept. Piura, Peru; Zimmer, Field Mus. Nat. Hist., Zool. Ser., 17, p. 402, 1930—Huánuco (crit., habits).

*Campylorhynchus balleatus* (not of Baird) Sclater, Proc. Zool. Soc. Lond., 1869, p. 146—"Lima"—above Lima (juv.).

*Range*.—Semi-arid Tropical zone of Peru, from the interior of Piura (Huancabamba) south through Cajamarca, Libertad, and Ancachs to Huánuco and (?) Lima.<sup>2</sup>

18: Peru (Trujillo, 1; Menocucho, 2; Hacienda Llagueda, northeast of Otuzco, 2; Hacienda Limón, west of Balsas, 1; Macate, Ancachs, 1; Huánuco, 11).

**\*Heleodytes fasciatus pallescens** (Lafresnaye).<sup>3</sup> ECUADORIAN BANDED WREN.

*Campylorhynchus pallescens*<sup>4</sup> Lafresnaye, Rev. Zool., 9, p. 93, 1846—"Mexique," errore;=southwestern Ecuador (type now in Museum of Comparative Zoology, Cambridge, Mass.; cf. Bangs, Bull. Mus. Comp. Zool., 70, p. 314,

<sup>1</sup> The locality "Cordoba" can hardly be correct.

<sup>2</sup> Birds from Huánuco are larger and darker than the remainder of our series and six specimens from Huancabamba (alt. 6,000 ft.), Dept. Piura, but as they are in much fresher plumage, the significance of this variation remains to be determined by additional material in comparable condition from other parts of Peru.

*H. f. fasciatus* is obviously allied to *H. turdinus*, though its exact affinities and derivation are rather obscure.

<sup>3</sup> *Heleodytes fasciatus pallescens* (Lafresnaye): Very close to *H. f. fasciatus*, but with shorter bill; whitish superciliaries much wider and much less variegated, with dusky edges; legs and feet decidedly paler, yellowish rather than horn brown; markings below smaller and lighter, less blackish. Wing, 86–89, (female) 77–85; tail, 88–93, (female) 83–89; bill, 20–22.

While birds from Ecuador are very uniform in their characters, those from Tumbes and Sullana (Piura) vary slightly, some being like those from Ecuador, others—in dark-colored legs as well as in certain markings—showing an undeniable approach to *H. f. fasciatus*.

*Material examined*.—Ecuador: Guayaquil, 1; Milagro, 1; Daule, 4; Santa Rosa, 2.—Peru: Tumbes, 2; Sullana, Piura, 4.

<sup>4</sup> Referred to as *C. pallidus* by Lafresnaye, l.c., p. 94.

1930); Sclater, Proc. Acad. Nat. Sci. Phila., 8, p. 264, 1856—Guayaquil (crit.); idem, Cat. Coll. Amer. Bds., p. 16, 1862—Babahoyo, Ecuador; Ridgway, Proc. Bost. Soc. N. H., 23, p. 384, 1888 (note on type).

*Campylorhynchus zonatoides* (not of Lafresnaye) Sclater, Proc. Zool. Soc. Lond., 28, p. 272, 1860—Babahoyo, Ecuador.

*Campylorhynchus balleatus* Baird, Rev. Amer. Bds., 1, p. 103, 1864—Piura, Peru, and Guayaquil, Ecuador (type from Piura in U. S. National Museum); Taczanowski, Proc. Zool. Soc. Lond., 1877, pp. 319, 749—Tumbez, Peru (egg descr.); Sharpe, Cat. Bds. Brit. Mus., 6, p. 200, 1881—"mountains" of Ecuador; Berlepsch and Taczanowski, Proc. Zool. Soc. Lond., 1883, p. 539—Yaguachi, Ecuador; Taczanowski, Orn. Pér., 1, p. 503, 1884—Tumbez, Chepen, Guadalupe, and Quebrada de Culebra, Peru; Salvadori and Festa, Boll. Mus. Zool. Torino, 14, No. 357, p. 5, 1899—Vinces and Balzar, Ecuador.

*Heleodytes balleatus* Bangs and Noble, Auk, 35, p. 456, 1918—Sullana, Piura, Peru.

*Heleodytes pallescens* Bangs and Penard, Bull. Mus. Comp. Zool., 63, p. 29, 1919 (note on type, crit., nomencl.).

*Heleodytes fasciatus pallescens* Chapman, Bull. Amer. Mus. N. H., 55, p. 563, 1926—Daule, Chongoncito, Duran, Santa Rosa, Casanga, Guainche, Rio Pullango, Ecuador, and Tumbez, Samate, Sullana, Chilaco, Lamor, Milagros, and Paletillas, Peru.

*Range*.—Tropical zone of southwestern Ecuador and extreme northwestern Peru (western section of the depts. of Tumbez and Piura).

1: Ecuador (Milagro, Prov. Guayas, 1).

**\**Heleodytes megalopterus*<sup>1</sup> *megalopterus* (Lafresnaye). HUITZ-ILAC CACTUS WREN.**

*Campylorhynchus megalopterus* Lafresnaye, Rev. Zool., 8, p. 339, 1845—Mexico (type now in Museum of Comparative Zoology, Cambridge, Mass.; cf. Bangs, Bull. Mus. Comp. Zool., 70, p. 313, 1930); Des Murs, Icon. Orn., livr. 9, pl. 54, 1847—"Colombie," errore; Sclater, Proc. Acad. Nat. Sci. Phila., 8, p. 264, 1856 (crit.); Ridgway, Proc. Bost. Soc. N. H., 23, p. 385, 1888 (crit., note on type).

<sup>1</sup>*Heleodytes megalopterus* is strikingly similar to *H. fasciatus*, but may be distinguished by shorter bill and different proportions, the wings being much longer, instead of equal to or shorter than the tail. There are also some details of coloration separating the two species. The under parts are less profusely marked in the Mexican bird, but the markings are at the same time more blackish, forming on the throat roundish spots instead of broad, deep grayish brown shaft-streaks. The feathers of the pileum are largely centered with blackish, in *H. fasciatus* nearly uniform (this difference disappears, however, in worn plumage, when the dusky centers become visible through wearing off of the light margins); the hind-neck is much more strongly washed with buffy brownish, followed by a broad black and white streaked zone across the nape, which is barely suggested in *H. fasciatus*; the inner web of the central tail feather is plain light grayish brown instead of mainly blackish. Wing, 93–95, (female) 85–89; tail, 87–91, (female) 84–87; bill, 21–33, (female) 19–21.

*Heleodytes alticolus* Nelson, Auk, 14, p. 68, 1897—Huitzilac, Morelos (type in U. S. National Museum examined).

*Campylorhynchus pallescens* (not of Lafresnaye) Salvin and Godman, Ibis, 1889, p. 235—hills surrounding the valley of Mexico (spec. examined).<sup>1</sup>

*Heleodytes megalopterus* Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 513, 1904—Morelos, Michoacan, and Mexico (monog.).

**Range.**—Southwestern portion of Mexican plateau, in states of Morelos (Huitzilac), Michoacan (Patamban), and Mexico (near City of Mexico; Ajusco, valley of Mexico; Rio Frio, Iztaccihuatl).

4: Mexico (near the City of Mexico, 1; Ajusco, valley of Mexico, 1; Rio Frio, Iztaccihuatl, 2).<sup>2</sup>

***Heleodytes megalopterus nelsoni* Ridgway.<sup>3</sup> GRAY CACTUS WREN.**

*Heleodytes nelsoni* Ridgway, Proc. Biol. Soc. Wash., 16, p. 111, 1903—"Jalapa," Vera Cruz, Mexico (type in U. S. National Museum); idem, Bull. U. S. Nat. Mus., 50, Part 3, p. 514, 1904—Vera Cruz and Oaxaca<sup>4</sup> (monog.).

*Campylorhynchus megalopterus* (not of Lafresnaye) Sclater, Proc. Zool. Soc. Lond., 26, p. 298, 1858—La Parada, near Oaxaca City, Oaxaca; idem, l.c., 27, p. 363, 1859—"vicinity of Jalapa," Vera Cruz; idem, l.c., 27, p. 371, 1859—Llano Verde, Oaxaca; idem, Cat. Coll. Amer. Bds., p. 17, 1862—southern Mexico; Sharpe, Cat. Bds. Brit. Mus., 6, p. 199, 1881—La Parada, Oaxaca.

*Campylorhynchus pallescens* (not of Lafresnaye) Baird, Rev. Amer. Bds., 1, p. 101, 1864—"Jalapa" and Orizaba (crit.); Sumichrast, Mem. Bost. Soc. N. H., 1, p. 544, 1869—near Orizaba, Vera Cruz; Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 69, 1880—La Parada, Llano Verde, "Jalapa," and Orizaba.

<sup>1</sup> Three specimens received from Messrs. Salvin and Godman in Field Museum.

<sup>2</sup> Additional specimens examined.—Morelos: Huitzilac, 5.—Michoacan: Patamban, 2.

<sup>3</sup> *Heleodytes megalopterus nelsoni* Ridgway: Very similar to *H. m. megalopterus*, but slightly smaller, and markings on under parts much paler, brown or grayish brown instead of blackish. Wing, 90–92, (female) 88–90; tail, 75–83; bill, 19–20.

Except for the dusky spotted pileum, this form is an exact duplicate of *H. fasciatus pallescens* as far as coloration is concerned. It differs, however, in proportions, the wings being much longer than the tail, and the bill being also somewhat shorter.

**Material examined.**—Vera Cruz: Jico, 4.—Oaxaca: Mount Zempoaltepec, 2.—Mexico: unspecified, 2.

<sup>4</sup> The specimen said to be from the valley of Mexico must be wrongly labeled, since two skins from authentic localities in that region prove to be referable to *H. m. megalopterus*.

*Range*.—Southeastern portion of Mexican plateau, in states of Vera Cruz (Orizaba, Jico)<sup>1</sup> and Oaxaca (Llano Verde, La Parada, Mount Zempoaltepec).

**\**Heleodytes zonatus*<sup>2</sup> *zonatus* (Lesson). MEXICAN BANDED WREN.**

*Picolaptes zonatus* Lesson, Cent. Zool., p. 210, pl. 70, 1832—"la Californie," errore (location of type not stated).

*Campylorhynchus zonatus* Sclater, Proc. Acad. Nat. Sci. Phila., 8, p. 264, 1856—Vera Cruz, Mexico; idem, Proc. Zool. Soc. Lond., 24, p. 290, 1856—Cordoba, Vera Cruz; idem, l.c., 27, p. 363, 1859—vicinity of Jalapa; Sclater and Salvin, Ibis, 1860, p. 29—above Dueñas, Guatemala (habits, nest); Baird, Rev. Amer. Bds., 1, p. 104, 1864—Mirador, Vera Cruz, and Guatemala (Choctum and Alotepeque); Sumichrast, Mem. Bost. Soc. N. H., 1, p. 545, 1869—temperate region of Vera Cruz (Orizaba, up to 1,300 meters alt.); Lawrence, Bull. U. S. Nat. Mus., 4, p. 13, 1876—Guichicovi, Oaxaca; Boucard, Ann. Soc. Linn. Lyon, (n.s.), 25, p. 39, 1878—Guatemala; Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 68, 1880—part, Mexican and Guatemalan localities; Sharpe, Cat. Bds. Brit. Mus., 6, p. 195, 1881—part, Mexico and Guatemala; Ferrari-Perez, Proc. U. S. Nat. Mus., 9, p. 135, 1886—Mazatiopam, Puebla, and Jalapa, Vera Cruz; Salvin and Godman, Ibis, 1889, p. 235—eastern side of the mountains from Teapa to Misantla, Mexico; Chapman, Bull. Amer. Mus. N. H., 10, p. 22, 1898—Jalapa (habits); Lantz, Trans. Kansas Acad. Sci., 16, p. 224, 1899—Rinconada, Vera Cruz.

*Campylorhynchus nigriceps* Sclater, Proc. Zool. Soc. Lond., 28, p. 461, 1860—Orizaba and Jalapa, Vera Cruz (types now in British Museum;=juv.); idem, Cat. Coll. Amer. Bds., p. 18, 1862—same localities.

*Heleodytes zonatus restrictus* Nelson, Auk, 18, p. 49, 1901—Frontera, Tabasco (type in U. S. National Museum); Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 512, 1904—southeastern Mexico in states of Oaxaca (Guichicovi) and Tabasco (Frontera, Teapa); Bangs and Peck, Proc. Biol. Soc. Wash., 21, p. 45, 1908—Toledo district, British Honduras; Austin, Bull. Mus. Comp. Zool., 69, p. 385, 1929—Mountain Cow, Cayo district, British Honduras.

*Heleodytes zonatus* Dearborn, Field Mus. Nat. Hist., Orn. Ser., 1, p. 133, 1907—Lake Amatitlan, Lake Atitlan, and Tecpam, Guatemala.

*Heleodytes zonatus zonatus* Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 510, 1904—southeastern Mexico to Honduras (monog.); Bangs and Peters, Bull. Mus. Comp. Zool., 67, p. 480, 1927—Presidio and Motzorongo, Vera Cruz.

<sup>1</sup> According to Sumichrast, the locality "Jalapa" ascribed to this wren is inaccurate, its range being confined to higher altitudes.

<sup>2</sup> The interrelations between *H. zonatus* and *H. megalopterus* require further investigation. The two groups have representatives in the State of Vera Cruz, though evidently at different altitudes.



*Heleodytes zonatus impudens* Bangs and Peters, Bull. Mus. Comp. Zool., 68, p. 398, 1929—Chivelá, Oaxaca (type in Museum of Comparative Zoology, Cambridge, Mass., examined).

*Range*.—Southeastern Mexico, in states of Vera Cruz, Puebla, Oaxaca, Tabasco, and Chiapas, and southwards through Guatemala, British Honduras, and Honduras to Nicaragua.<sup>1</sup>

16: Mexico (Playa Vicente, 1; Atoyac, Vera Cruz, 1; Teapa, Tabasco, 1; unspecified, 1); Guatemala (Lake Amatitlan, 2; Lake Atitlan, 4; near Tecpam, 3); Honduras (unspecified, 1); Nicaragua (San Rafael del Norte, 1; Concordia Cafetal, Jinotega, 1).

**\**Heleodytes zonatus costaricensis* (Berlepsch).<sup>2</sup> COSTA RICAN BANDED WREN.**

*Campylorhynchus zonatus costaricensis* Berlepsch, Auk, 5, p. 449, 1888—Costa Rica (type in Berlepsch Collection, now in Frankfurt Museum).

*Heleodytes zonatus costaricensis* Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 512, 1904—"highlands" of Costa Rica (monog.); Carriker, Ann. Carnegie Mus., 6, p. 770, 1910—Caribbean side of Costa Rica; Ferry, Field Mus. Nat. Hist., Orn. Ser., 1, p. 272, 1910—Guayábo and Coliblanco, Costa Rica; Rendahl, Ark. Zool., 12, No. 8, p. 36, 1919—Talamanca, Costa Rica; Peters, Bull. Mus. Comp. Zool., 71, p. 330, 1931—Crimacola, Bocas del Toro, and Almirante, Panama (crit.).

*Campylorhynchus zonatus* (not *Picolaptes zonatus* Lesson) Lawrence, Ann. Lyc. Nat. Hist. N. Y., 9, p. 92, 1868—Turrialba, Cervantes, and Tucuriquí, Costa Rica; Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 68, 1880—part, Costa Rican localities; Sharpe, Cat. Bds. Brit. Mus., 6, p. 195, 1881—part, Parita, Costa Rica; Zeledón, Anal. Mus. Nac. Costa Rica, 1, p. 105, 1887—Jiménez, Naranjo de Cartago, Turrialba, and Cartago, Costa Rica.

<sup>1</sup> It appears to me impossible to maintain the races *restrictus* and *impudens*, individual variation in dimensions and the amount of the dusky markings underneath being too great to be of taxonomic value, and I am inclined to agree with Griscom in uniting the Banded Wrens found from Vera Cruz down to Nicaragua under Lesson's term *zonatus*. The supposedly larger size of the Oaxaca form (*impudens*) loses much of its weight by the occurrence in Nicaragua of equally large individuals. The flanks are generally more heavily barred in *impudens*, but similar specimens occur also in other parts of Central America. The Guatemalan series differs in no wise from another taken in Vera Cruz; both vary—regardless of locality—in the pattern of the flanks from nearly unspotted to heavily spotted. Two birds from Nicaragua cannot be told from the Guatemalan average and, while one from Teapa, Tabasco (*restrictus*), has the spotting more extended towards the middle of the abdomen, it is hard to believe that this is more than an individual variety.

In addition to our own material, we have examined twenty-five specimens, including three from Chivelá (type locality of *H. z. impudens*) and one from Guichicovi, Tehuantepec.

<sup>2</sup> *Heleodytes zonatus costaricensis* (Berlepsch) differs from the typical race by considerably smaller size, darker, more tawny abdomen and heavier as well as more blackish spotting on throat and breast; from *H. z. brevirostris* and *H. z. curvirostris* by tawny (instead of ochraceous) abdomen, nearly immaculate (instead of strongly barred) flanks, and less spotted under tail coverts.

*Range*.—Caribbean side of Costa Rica and adjacent section of western Panama (Almirante Bay region).

21: Costa Rica (Guayábo, 9; Coliblanco, 4; Peralta, 2; Turrialba, 2; Santa Cruz de Turrialba, 2; Limón, 2).

***Heleodytes zonatus panamensis* Griscom.<sup>1</sup> PANAMA BANDED WREN.**

*Heleodytes zonatus panamensis* Griscom, Amer. Mus. Nov., 280, p. 12, Sept. 1, 1927—Santa Fé, Veraguas (type in the American Museum of Natural History, New York, examined).

*Range*.—Western Panama (Santa Fé, Prov. Veraguas).

**\**Heleodytes zonatus brevirostris* (Lafresnaye). SHORT-BILLED BANDED WREN.**

*Campylorhynchus brevirostris* Lafresnaye, Rev. Zool., 8, p. 339, 1845—Bogotá, Colombia (descr. juv.; types now in Museum of Comparative Zoology, Cambridge, Mass.; cf. Bangs, Bull. Mus. Comp. Zool., 70, p. 312, 1930); idem, l.c., 9, p. 94, 1846—Bogotá; Selater, Proc. Acad. Nat. Sci. Phila., 8, p. 264, 1856—Bogotá (ex Lafresnaye); idem, Proc. Zool. Soc. Lond., 23, p. 143, 1855—Bogotá (ex Lafresnaye); Sharpe, Cat. Bds. Brit. Mus., 6, p. 198, 1881—Bogotá; Berlepsch, Journ. Orn., 32, p. 279, 1884—"Bucaramanga"; Ridgway, Proc. Bost. Soc. N. H., 23, p. 384, 1888 (crit. notes on types); Goodfellow, Ibis, 1901, p. 312—Santo Domingo, Ecuador.

*Campylorhynchus zonatoides* Lafresnaye, Rev. Zool., 9, p. 92, 1846—no locality indicated (descr. adult; types now in Museum of Comparative Zoology, Cambridge, Mass.; cf. Bangs, Bull. Mus. Comp. Zool., 70, p. 312, 1930); Selater, Proc. Zool. Soc. Lond., 23, p. 143, 1855—Bogotá; idem, Proc. Acad. Nat. Sci. Phila., 8, p. 264, 1856—New Granada; idem, Cat. Coll. Amer. Bds., p. 17, 1862—Bogotá; Wyatt, Ibis, 1871, p. 321—Naranjo, below Bucaramanga, Santander, Colombia.

*Heleodytes zonatus brevirostris* Chapman, Bull. Amer. Mus. N. H., 36, p. 511, 1917—Opon, Puerto Berrio, Malena, and El Consuelo (above Honda), Magdalena Valley, Colombia; idem, l.c., 55, p. 563, 1926—Esmeraldas, Coaque, and Chone, Ecuador.

<sup>1</sup>*Heleodytes zonatus panamensis* Griscom: Exceedingly close to *H. z. costaricensis*, but slightly smaller; abdomen on average darker tawny; hindneck more strongly washed with brownish. Wing (four adult males), 68, 69, 70, 73 (against 72–76 in *costaricensis*); tail, 68, 69, 71, 72 (against 70–75); bill, 19–20.

It is with considerable reluctance that we admit this very unsatisfactory race. The abdomen is slightly deeper ochraceous-tawny than in numerous Costa Rican examples, but about 50 per cent of the latter are not distinguishable on this score. The spotting of the under tail coverts does not afford a reliable character nor can I detect the slightest diversity in the markings of the pileum between the two forms.

*Material examined*.—Veraguas: Santa Fé, 5.

*Range*.—Tropical zone of the Magdalena Valley, Colombia, and of northwestern Ecuador, south to the Chone River.<sup>1</sup>

2: Colombia ("Bogotá," 2).

**\*Heleodytes zonatus curvirostris (Ridgway).<sup>2</sup> CURVE-BILLED BANDED WREN.**

*Campylorhynchus curvirostris* (Lafresnaye MS.) Ridgway, Proc. Bost. Soc. N. H., 23, p. 385, 1888—"New Granada" (type now in Museum of Comparative Zoology, Cambridge, Mass.; cf. Bangs, Bull. Mus. Comp. Zool., 70, p. 313, 1930).

*Heleodytes curvirostris* Todd and Carriker, Ann. Carnegie Mus., 14, p. 423, 1922—Fundación, Tucurínca, and Valencia, Santa Marta region (crit., habits); Darlington, Bull. Mus. Comp. Zool., 71, p. 408, 1931—Rio Frío, Magdalena, Colombia (habits).

*Range*.—Tropical zone of the Santa Marta region, northern Colombia.

2: Colombia (Fundación, 2).

**Heleodytes nuchalis nuchalis (Cabanis). ORINOCAN BANDED WREN.**

*Campylorhynchus nuchalis* Cabanis, Arch. Naturg., 13, (1), p. 206, 1847—Venezuela (type in Berlin Museum examined<sup>3</sup>); Berlepsch, Ibis, 1884, p.

<sup>1</sup> In spite of the obviously discontinuous distribution I have been unable to discover any constant character whereby to distinguish Ecuadorian birds from those of Colombia.

*Material examined*.—Colombia: Puerto Berrio, 2; Malena, 2; "Bogotá," 8.—Ecuador: Esmeraldas, 6; San Javier, 2.

<sup>2</sup> *Heleodytes zonatus curvirostris* (Ridgway): Very close to *H. z. brevirostris*, but on average smaller; bill slenderer, particularly at base, and frequently, though not constantly, shorter; abdomen and under tail coverts more deeply ochraceous, sometimes nearly cinnamon; hindneck more strongly washed with buffy or sayal brown; barring above more buffy. Wing, 78–81, (female) 73–80; tail, 77–82, (female) 74–80; bill, 19–20½.

Comparison of a series of freshly molted specimens with adequate material of *H. z. brevirostris* shows most of the characters claimed for the Santa Marta form to be seasonal rather than geographic. The best diagnostic feature of *H. z. curvirostris* is the deeper ochraceous belly, though even this does not hold in every particular case, the palest Santa Marta birds being fully matched by certain exceptionally dark-vented *brevirostris* (e.g., No. 118836, A.M.N.H., Esmeraldas, Ecuador). I fail to find any constant difference in the shape and disposition of the dusky spots underneath or in the extent of the unspotted abdominal area, and only in three out of twelve specimens from Santa Marta are the lower throat and chest more strongly washed with buff than in *brevirostris*. The barring above appears to be slightly more buffy, especially on the outer webs of the remiges, but the divergency is completely bridged by individual variation.

*Material examined*.—Colombia: Aracataca, 2; Fundación, 8; Tucurínca, 2.

<sup>3</sup> Thanks to the courtesy of Dr. E. Stresemann I have been able to compare directly the type (No. 4681, Berlin Museum) with an ample series from both the north coast districts of Venezuela and the Orinoco-Caura basin. It is an adult bird in good condition and belongs unquestionably to the Orinocan race. The type has the indistinctly spotted pileum, the strong brownish wash on the hind-

432—Angostura, Orinoco (crit.); Berlepsch and Hartert, Nov. Zool., 9, p. 5, 1902—Altagracia, Orinoco, Venezuela.

*Heleodytes nuchalis* Cherrie, Sci. Bull., Mus. Brookl. Inst., 2, p. 146, 1916—along the middle Orinoco, at Altagracia, Caicara, and Quiribana de Caicara, Venezuela (habits).

**Range.**—Central Venezuela, on the banks of the Orinoco (Ciudad Bolivar, Altagracia, Caicara, Quiribana de Caicara) and its tributary, the Caura River (Maripa).

**\**Heleodytes nuchalis pardus* (Sclater).<sup>1</sup> CARIBBEAN BANDED WREN.**

*Campylorhynchus pardus* Sclater,<sup>2</sup> Proc. Zool. Soc. Lond., 25, "1857," p. 271, pub. Jan., 1858—"Santa Marta" (type in coll. G. N. Lawrence, now in the American Museum of Natural History, New York); Wyatt, Ibis, 1871, p. 321—Catamucho, lower Magdalena, Colombia; Sharpe, Cat. Bds. Brit. Mus., 6, p. 204, pl. 12, fig. 1, 1881—"New Granada."

*Heleodytes pardus* Darlington, Bull. Mus. Comp. Zool., 71, p. 408, 1931—Cienaga, lower Magdalena, Colombia.

*Campylorhynchus nuchalis* (not of Cabanis) Sclater, Proc. Acad. Nat. Sci. Phila., 8, p. 264, 1856—Venezuela and "Trinidad"; idem, Cat. Coll. Amer. Bds., p. 17, 1862—"Trinidad"; Taylor, Ibis, 1864, p. 80—near

neck and foreback, and the sparingly marked under parts of specimens from Ciudad Bolivar, with which it, furthermore, agrees in the short, slender bill. The indication on the label, "Cumaná," where the Caribbean race is more likely to occur, may well be questioned. As in the case of *H. minor*, also described by Cabanis, the type probably originated from the Orinoco Valley instead.

**Material examined.**—Venezuela: Altagracia, Orinoco, 2; Ciudad Bolivar, Orinoco, 4; Caura River, 3; Maripa, Caura, 2; "Cumaná," 1 (the type).

<sup>1</sup>*Heleodytes nuchalis pardus* (Sclater): Similar to *H. n. nuchalis*, but on average larger; bill markedly heavier and longer; feathers of pileum much more distinctly centered with blackish; hindneck and upper back less buffy; under parts much more profusely spotted, the blackish markings extending also over the middle of the abdomen, which is wholly or nearly immaculate white in the typical race.

Birds from Venezuela (Carabobo and Aragua) being identical with others from northern Colombia, the Caribbean form must be called *H. n. pardus*, a name originally based on a specimen from "Santa Marta." The type of *C. brevipennis* is a juvenile (fere pullus) of the present race.

**Material examined.**—Colombia: Cienaga, 1; Cerro de San Antonio, Magdalena, 1; Calamar, 2.—Venezuela: San Esteban, 6; Cumbre de Valencia, 2; Maracay, Aragua, 10.

**MEASUREMENTS**

	Wing	Tail	Bill
Type of <i>C. nuchalis</i> (unsexed adult).....	75	76	16
Eleven adults from the Orinoco-Caura basin.	70-75	71-77	16-17
Eighteen adults from the Venezuelan north coast.....	73-77	72-78	18-19½

<sup>2</sup>The name was first introduced by Bonaparte (Compt. Rend. Acad. Sci. Paris, 38, p. 61, 1854; Not. Orn. Coll. Delattre, p. 43, 1854): "MM. Verreaux ont reçu de la Nouvelle-Grenade une belle espèce élégamment tachetée qu'ils feront connaitre sous le nom de *Camp. pardus*." This is altogether too indefinite, and I cannot follow Mr. Bangs (Bull. Mus. Comp. Zool., 70, p. 314, 1930) in accepting Bonaparte's term, which seems to me a nomen nudum.

Barcelona, north coast of Venezuela; Sclater and Salvin, Proc. Zool. Soc. Lond., 1868, p. 626—San Esteban, Carabobo; Finsch, l.c., 1870, p. 554—"Trinidad," errore (ex Taylor); Sharpe, Cat. Bds. Brit. Mus., 6, p. 203, 1881—Venezuela (San Esteban) and "Trinidad."

*Heleodytes nuchalis* Robinson, Proc. U. S. Nat. Mus., 18, p. 682, 1896—Guanta, twelve miles east of Barcelona, north coast of Venezuela; Allen, Bull. Amer. Mus. N. H., 13, p. 180, 1900—Cienaga, lower Magdalena, Colombia; Todd and Carriker, Ann. Carnegie Mus., 14, p. 422, 1922—Tierra Nueva and Fonseca, Santa Marta region, Colombia (habits); Bangs, Bull. Mus. Comp. Zool., 70, p. 314, 1930—Colombia (crit.).

*Heleodytes nuchalis nuchalis* Hellmayr and Seilern, Arch. Naturg., 78, A, Heft 5, p. 39, 1912—San Esteban and Cumbre de Valencia, Carabobo (crit.); Chapman, Bull. Amer. Mus. N. H., 36, p. 511, 1917—Sinu River and lower Magdalena (Turbaco, Calamar, Carpenteria, Boca de Chimi, Banco), northern Colombia (crit.).

*Campylorhynchus brevipennis* Lawrence, Ann. Lyc. Nat. Hist. N. Y., 8, p. 344, 1867—Venezuela (type in U. S. National Museum examined;=pullus); Berlepsch, Proc. U. S. Nat. Mus., 11, "1888," p. 564, Sept., 1889 (crit.).

**Range.**—Tropical zone of northern Colombia (Sinu River; lower Magdalena; Rio Rancheria) and northern Venezuela (San Esteban and Cumbre de Valencia, Carabobo; Maracay, Aragua; Barcelona and Guanta, Sucre).<sup>1</sup>

10: Venezuela (Maracay, Aragua, 10).

**\**Heleodytes rufinucha capistratus* (Lesson). HOODED CACTUS WREN.**

*Picolaptes capistratus* Lesson, Rev. Zool., 5, p. 174, 1842—Realejo, Pacific coast of Nicaragua (type now in Paris Museum); Des Murs, Icon. Orn., livr. 11, pl. 63, 1848—part, descr. and figure of type from Realejo in Paris Museum.

*Campylorhynchus capistratus* Sclater, Proc. Acad. Nat. Sci. Phila., 8, p. 264, 1856—part, Central America; Baird, Rev. Amer. Bds., 1, p. 104, 1864—part, Punta Arenas, Costa Rica; Lawrence, Ann. Lyc. Nat. Hist. N. Y., 9, p. 92, 1868—San Mateo, Costa Rica; Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 64, 1880—part, Pacific coast of Nicaragua (Realejo and San Juan del Sur) and Costa Rica (Punta Arenas, San Mateo, Bebedero); Sharpe, Cat. Bds. Brit. Mus., 6, p. 191, 1881—part, Nicaragua (Realejo) and Costa Rica; Ridgway and Nutting, Proc. U. S. Nat. Mus., 5, p. 389, 1882—La Palma, Gulf of Nicoya, Costa Rica (crit., habits); Ridgway, l.c., 6, p. 373, 1883—San Juan del Sur, Nicaragua; idem, l.c., p. 381, 1883—Sucuyá, Nicaragua; Zeledón, Anal. Mus. Nac. Costa Rica, 1, p. 105, 1887—Tárcoles and San Mateo, Costa Rica; Ridgway, Proc. U. S. Nat. Mus., 11, p. 538, 1888—Costa Rica (crit.); Cherrie, l.c., 14, p. 518, 1891—San Mateo and Trojas, Costa Rica (crit.); Underwood, Ibis, 1896, p. 433—Miravalles, Costa Rica.

<sup>1</sup> "Trinidad" is sometimes erroneously assigned to its range.

*Heleodytes capistratus* Cabanis, Journ. Orn., 8, p. 409, 1860—part, "adult," Costa Rica.

*Heleodytes capistratus capistratus* Ridgway, Bull. U. S. Nat. Mus., 50, Part 4, p. 504, 1904—part, Pacific Nicaragua and Costa Rica; Bangs, Auk, 24, p. 304, 1907—Barranca de Puntarenas, Costa Rica; Carriker, Ann. Carnegie Mus., 6, p. 770, 1910—Pigres, Bebedéro, San Mateo, Trojas, Bolson, Coralfillo, Mojica, Miravalles, Esparto, Costa Rica (habits); Rendahl, Ark. Zool., 12, No. 8, p. 36, 1919—Masaya, Nicaragua.

*Campylorhynchus zonatus* (errore) Boucard, Proc. Zool. Soc. Lond., 1878, p. 51—San Mateo, Costa Rica.

**Range.**—Pacific coast of Nicaragua and northwestern portion of Pacific slope and lowlands of Costa Rica, south to the Rio Grande.<sup>1</sup> 2: Costa Rica (Las Cañas, 2).

**\**Heleodytes rufinucha castaneus* (Ridgway).<sup>2</sup> CHESTNUT CACTUS WREN.**

*Campylorhynchus castaneus* Ridgway, Proc. U. S. Nat. Mus., 10, p. 507, 1885—Spanish Honduras (type in U. S. National Museum).

*Campylorhynchus capistratus* (not *Picolaptes capistratus* Lesson) Sclater and Salvin, Ibis, 1859, p. 8—Belize and Honduras; Sclater, Cat. Coll. Amer. Bds., p. 17, 1862—part, spec. b, Honduras; Sclater and Salvin, Proc. Zool. Soc. Lond., 1870, p. 836—San Pedro, Honduras; Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 64, 1880—part, Guatemala (Motagua Valley), Belize, and Honduras (San Pedro).

*Heleodytes capistratus capistratus* Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 505, 1904—part, Guatemala (Chuacus) and Honduras.

*Heleodytes capistratus* Dearborn, Field Mus. Nat. Hist., Orn. Ser., 1, p. 132, 1907—part, Lake Amatitlan and El Rancho (Zacapa), Guatemala (crit.).

*Campylorhynchus rufinucha* (not *Picolaptes rufinucha* Lesson) Salvin, Ibis, 1866, p. 191—valley of Motagua (Chuacus), northern Guatemala.

*Heleodytes rufinucha nicaraguae* Miller and Griscom, Amer. Mus. Nov., 159, p. 8, 1925—Matagalpa, Nicaragua (type in the American Museum of Natural History, New York).

<sup>1</sup> **Additional material examined.**—Nicaragua: Realejo, 1.—Costa Rica: Bebedéro, 6.

<sup>2</sup> *Heleodytes rufinucha castaneus* (Ridgway): Similar to *H. r. capistratus*, but back much less variegated with black and white, often nearly uniform rufous.

Further subdivision of this form appears to be impracticable, and much to my regret I cannot possibly follow Griscom's disposition of the case. Birds from northern Guatemala (Zacapa, Progreso) seem to me inseparable from those taken at San Gerónimo, Nicaragua. Some of the Honduras specimens are slightly darker chestnut (and practically unspotted) above, but even these are closely approached by one from Lake Amatitlan (F.M.N.H., No. 23256). Until more adequate material from Honduras becomes available, the inhabitants of Central America (excepting the Pacific coast of Nicaragua, Salvador, and Guatemala) may well be united under Ridgway's term.

**Material examined.**—Honduras: Chamelicon, San Pedro, 6.—Guatemala: Progreso, 10; El Rancho, Zacapa, 3; Lake Amatitlan, 2.—Nicaragua: Matagalpa, 4; San Gerónimo, 8.

*Heleodytes capistratus xerophilus* Griscom, Amer. Mus. Nov., 414, p. 7, 1930—Progreso, Guatemala (type in the American Museum of Natural History, New York).

*Heleodytes capistratus castaneus* Peters, Bull. Mus. Comp. Zool., 69, p. 457, 1929—Progreso, Caribbean lowlands of Honduras.

**Range.**—Central America, from Honduras north through the greater part of Nicaragua (except the Pacific coast) to northern Guatemala.

14: Honduras (Chamelicon, 1); Guatemala (Lake Amatitlan, 2; El Rancho, Zacapa, 3); Nicaragua (San Gerónimo, Chinandega, 8).

**\*Heleodytes rufinucha chiapensis** (Salvin and Godman).<sup>1</sup> CHIAPAS CACTUS WREN.

*Campylorhynchus chiapensis* Salvin and Godman, Ibis, (6), 3, p. 609, 1891—Tonala, Pacific coast of Chiapas, Mexico (type now in British Museum).

*Heleodytes chiapensis* Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 504, 1904—Tonala (ex Salvin and Godman).

*Heleodytes capistratus nigricaudatus* Nelson, Auk, 14, p. 70, 1897—San Benito, near Tapachula, Pacific coast of Chiapas (type in U. S. National Museum); Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 506, 1904—Pacific coast of Chiapas and adjacent parts of Guatemala (monog.).

*Campylorhynchus capistratus* (not *Picolaptes capistratus* Lesson) Selater, Cat. Coll. Amer. Bds., p. 17, 1862—part, spec. d, Escuintla; Baird, Rev. Amer. Bds., 1, p. 104, 1864—part, Savanna Grande, Guatemala; Salvin, Ibis, 1866, p. 191 (in text)—Pacific side of Guatemala; Boucard, Ann. Soc. Linn. Lyon, (n.s.), 25, p. 39, 1878—Escuintla, Guatemala; Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 64, 1880—part, Pacific side of Guatemala (Savanna Grande, Escuintla, Naranjo, Retalhuleu) and (?) San Salvador (Acajutla, La Union); Sharpe, Cat. Bds. Brit. Mus., 6, p. 191, 1881—part, Savanna Grande, Guatemala; Lantz, Trans. Kansas Acad. Sci., 16, p. 224, 1899—Naranjo, Guatemala.

*Heleodytes capistratus* Dearborn, Field Mus. Nat. Hist., Orn. Ser., 1, p. 132, 1907—part, Patulul and San José, Guatemala.

<sup>1</sup>*Heleodytes rufinucha chiapensis* (Salvin and Godman): Very close to *H. r. castaneus* and upper parts also nearly uniform, but on average slightly deeper in tone, and basal half of median tail feathers less banded with brownish, the bars being reduced to marginal spots.

Two specimens from Chiapas (San Benito) agree with a good series from the Pacific slope of Guatemala. There is nothing in the diagnosis of *C. chiapensis* that contradicts the characters of the present form, the bright chestnut back, upon which the describers lay so much stress, being one of its distinctive features. The measurement of the wing (85 mm.) is slightly in excess of the figures shown by our own material, though some Guatemalan individuals, with wings of 81 and 82 mm., run very close. The barring of the median rectrices, though somewhat variable, is more restricted than in the other members of the group.

Fifteen specimens examined.

*Range*.—Pacific slope of southeastern Mexico, in State of Chiapas (Huehuetan, San Benito, Tonalá), Guatemala, and (?) San Salvador.

3: Guatemala (San José, 2; near Patulul, 1).

**\*Heleodytes rufinucha rufinucha (Lesson).<sup>1</sup> RUFOUS-NAPED CACTUS WREN.**

*Picolaptes rufinucha* Lesson,<sup>2</sup> Ann. Sci. Nat., (2), Zool., 9, p. 168, 1838—Vera Cruz, Mexico (type in coll. R. P. Lesson); idem, Oeuvr. Buffon, éd. Lévêque, 20 (Descr. Mammif. et Ois.), p. 285, 1847—Vera Cruz.

*Campylorhynchus rufinucha* Lafresnaye, Rev. Zool., 8, p. 339, 1845—Mexico (type now in Museum of Comparative Zoology, Cambridge, Mass.; cf. Bangs, Bull. Mus. Comp. Zool., 70, p. 312, 1930); Baird, Rev. Amer. Bds., 1, p. 105, 1864—part, Mirador, Mexico (crit.); Salvin and Godman, Ibis, 1889, p. 234—Vera Cruz (crit.); Lantz, Trans. Kansas Acad. Sci., 16, p. 224, 1899—Rinconada, Vera Cruz.

*Heleodytes rufinucha* Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 507, 1904—southeastern Mexico, in states of Vera Cruz, "Puebla (Rinconada)," and "Oaxaca" (monog.).

*Picolaptes capistratus* (not of Lesson) Des Murs, Icon. Orn., livr. 11, text to pl. 63, 1848—part, descr. spec. ex Vera Cruz.

*Heleodytes capistratus* Cabanis, Journ. Orn., 8, p. 409, 1860—part, "Chico" [= Jico], Vera Cruz, Mexico (crit.).

*Campylorhynchus capistratus* Sclater, Proc. Zool. Soc. Lond., 27, p. 363, 1859—Jalapa, Vera Cruz; idem, l.c., p. 371, 1859—Juquila and Playa Vicente, "Oaxaca"; Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 64, 1880—part, Mexico (Vera Cruz, Jalapa, Juquila, Playa Vicente, Mirador, "Chico"); Sharpe, Cat. Bds. Brit. Mus., 6, p. 191, 1881—part, Vera Cruz.

*Range*.—Southeastern Mexico, in State of Vera Cruz (Vera Cruz, Mirador, Jalapa, Jico, Rinconada, Playa Vicente, etc.) and adjacent parts of northern Oaxaca (Juquila).

1: Mexico (Vera Cruz, 1).

**\*Heleodytes rufinucha humilis (Sclater). SCLATER'S CACTUS WREN.**

*Campylorhynchus humilis* Sclater, Proc. Acad. Nat. Sci. Phila., 8, p. 263, 1856—"Mazatlan, Sinaloa" (type in Academy of Natural Sciences, Philadelphia); Baird, Rev. Amer. Bds., 1, p. 107, 1864—Colima and "Orizaba," errore; Sumichrast, Mem. Bost. Soc. N. H., 1, p. 545, 1869—Juchitan, Tehuantepec; Lawrence, l.c., 2, p. 267, 1874—"Mazatlan" and Colima; idem,

<sup>1</sup> *Heleodytes rufinucha rufinucha* (Lesson), a well-marked form, differs from the preceding ones by smaller size and by having the under parts speckled with dusky. Five specimens, all from Vera Cruz, examined.

<sup>2</sup> Lesson's original description, which has several years' priority over Lafresnaye's, has been completely overlooked by authors. The term *rufinucha*, being the oldest bestowed upon any member of the group, takes precedence over *capistratus* as specific title.



Bull. U. S. Nat. Mus., 4, p. 13, 1876—Santa Efigenia and Tehuantepec City, Oaxaca; Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 65, 1880—"Mazatlan," Colima, San Juan del Rio, Juchitan, Santa Efigenia, and Tehuantepec City; Sharpe, Cat. Bds. Brit. Mus., 6, p. 192, 1881—from "Mazatlan" to Tehuantepec.

*Heleodytes humilis* Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 508, 1904—Oaxaca to Colima (monog.); Bangs and Peters, Bull. Mus. Comp. Zool., 68, p. 399, 1928—Chivelá and Tehuantepec, Oaxaca.

*Heleodytes humilis rufus* Nelson, Auk, 14, p. 69, 1897—Aguahuitzotla, Guerrero (type in U. S. National Museum).

*Range*.—Southwestern Mexico, in states of Colima, Michoacan, Guerrero, and in southern Oaxaca, east to Tehuantepec.

1: Guerrero (Apipiluluca, 1).

**\*Heleodytes brunneicapillus couesi** (Sharpe). CACTUS WREN.

*Campylorhynchus couesi* Sharpe, Cat. Bds. Brit. Mus., 6, p. 196, 1881—Texas (type in British Museum).

*Heleodytes brunneicapillus couesi* Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 522, 1904 (monog., full bibliog.); Phillips, Auk, 28, p. 81, 1911—Matamoros, Tamaulipas; Grinnell, Pac. Coast Avifauna, 11, p. 156, 1915—southeastern California; van Rossem, Trans. San Diego Soc. N. H., 6, p. 273, 1931—Sarc, Pesqueira, Sósabe Valley, San Felix mine, and twelve miles west of Magdalena, Sonora; Grinnell, Univ. Calif. Pub. Zool., 32, p. 211, 1928—Colorado Desert region of northern Lower California.

*Heleodytes brunneicapillus* (not *Picolaptes brunneicapillus* Lafresnaye) Nelson, Proc. Biol. Soc. Wash., 12, p. 59, 1898 (range).

*Range*.—Lower Austral deserts from the southern parts of California, Nevada, Utah, New Mexico, and central Texas south to northern Lower California and the northern states of Mexico (Sonora, Chihuahua, Coahuila, Nuevo Leon, and Tamaulipas).

35: Texas (Brownsville, 2; Crystal City, 1; Harlingen, 1; Laredo, 1; Lomita, 1); New Mexico (Deming, 9); Arizona (Huachuca Plains, 3; Tucson, 1; Fort Grant, 1; Calabasas, 1; Phoenix, 3); California (Claremont, 3; San Diego, 1); Tamaulipas (Nuevo Laredo, 2); Coahuila (Sabinas, 5).

**\*Heleodytes brunneicapillus bryanti** Anthony. BRYANT'S CACTUS WREN.

*Heleodytes brunneicapillus bryanti* Anthony, Auk, 11, pp. 211, 212, 1894—San Telmo, Lower California (type now in Carnegie Museum); Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 519, 1904—part (monog., full bibliog.); Grinnell, Condor, 23, p. 169, 1921—California (crit.); idem, Univ. Calif. Pub. Zool., 32, p. 212, 1928—northwestern Lower California; Todd, Ann. Carnegie Mus., 18, p. 356, 1928 (note on type).

*Range*.—Pacific slope of northwestern Lower California, from latitude 31° to latitude 29° 30'.

2: Lower California (San Telmo, 2).

**Heleodytes brunneicapillus purus** van Rossem.<sup>1</sup> SAN IGNACIO  
CACTUS WREN.

*Heleodytes brunneicapillus purus* van Rossem, Trans. San Diego Soc. N. H., 6, p. 225, 1931—Santa Agueda Reservoir, eleven miles west of Santa Rosalia, Gulf coast of Lower California (type in D. R. Dickey Collection, Pasadena).

*Heleodytes brunneicapillus affinis* (not *Campylorhynchus affinis* Xantus) Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 520, 1904—part (monog., full bibliog.); Grinnell, Univ. Calif. Pub. Zool., 32, p. 213, 1928—part, middle section of Lower California.

*Range*.—Middle section of Lower California from Mesquital and Punta Prieta south to Dolores Bay.

**\*Heleodytes brunneicapillus affinis** (Xantus).<sup>2</sup> SAN LUCAS  
CACTUS WREN.

*Campylorhynchus affinis* Xantus, Proc. Acad. Nat. Sci. Phila., 11, p. 298, 1859—Cape San Lucas, Lower California (type in U. S. National Museum).

*Heleodytes brunneicapillus affinis* Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 520, 1904—part (monog., full bibliog.); Grinnell, Univ. Calif. Pub. Zool., 32, p. 213, 1928—part, Cape region of Lower California.

*Range*.—Cape district of Lower California.

10: Lower California (La Paz, 4; Cape San Lucas, 2; San José del Cabo, 1; Todos Santos, 1; Santa Anita, 2).

**Heleodytes brunneicapillus brunneicapillus** (Lafresnaye).  
GUAYMAS CACTUS WREN.

<sup>1</sup>*Heleodytes brunneicapillus purus* van Rossem: "Differs from all of the known races of *H. brunneicapillus* in possessing, when in relatively unworn plumage, pure black and white under parts with only very rarely the slightest traces of brown or buffy on the flanks. Differs from *H. b. affinis* (Xantus) of the Cape region in lacking the strong buffy suffusion on the under parts and in having decidedly grayer (less reddish) upper parts. Differs from *H. b. bryanti* Anthony, of the San Pedro Mártir district, in less buffy under parts, broader dorsal streaking, and from both *affinis* and *bryanti* in slightly smaller general size and in decidedly smaller bill." (van Rossem, l.c.).

<sup>2</sup>*Heleodytes brunneicapillus affinis* (Xantus): Similar to *H. b. purus* van Rossem, but differs by having the upper parts, particularly the pileum, much more reddish, and the posterior under parts much more buffy; size on average larger. From *H. b. bryanti*, it differs by being much paler, with under parts less heavily spotted with black, more reddish crown and hindneck, and by having the outer rectrices marked with distinct white bars on both webs.

*Picolaptes brunneicapillus* Lafresnaye, Mag. Zool., 5, cl. 2, pl. 47, 1835—supposed to be from California, errore<sup>1</sup> (type now in Museum of Comparative Zoology, Cambridge, Mass.; cf. Bangs, Bull. Mus. Comp. Zool., 70, p. 313, 1930); Hermann, Journ. Acad. Nat. Sci., 2, p. 263, 1853—Guaymas, Sonora (habits).

*Campylorhynchus brunneicapillus* Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 67, 1880—part, Sonora.

*Heleodytes brunneicapillus brunneicapillus* Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 517, 1904 (monog., full bibliog.); van Rossem, Trans. San Diego Soc. N. H., 6, p. 213, 1931—southern Sonora (crit.).

*Range*.—Coastal district of southern Sonora, Mexico.<sup>2</sup>

**\**Heleodytes brunneicapillus guttatus* (Gould). MEXICAN CACTUS WREN.**

*Thryothorus guttatus* Gould,<sup>3</sup> Proc. Zool. Soc. Lond., 4, "1836," p. 89, pub. Feb., 1837—Mexico (type lost, formerly in collection of Zoological Society of London).

*Heleodytes brunneicapillus obscurus* Nelson, Proc. Biol. Soc. Wash., 12, p. 58, 1898—Tula, Hidalgo (type in U. S. National Museum); Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 521, 1904—central portion of Mexican plateau (monog., full bibliog.); Miller, Bull. Amer. Mus. N. H., 22, p. 182, 1906—Rancho Baillon, northwestern Durango.

*Campylorhynchus brunneicapillus* (not *Picolaptes brunneicapillus* Lafresnaye) Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 67, 1880—part, Guanajuato and valley of Mexico.

*Range*.—Central portion of Mexican plateau, from Durango, Zacatecas, San Luis Potosi, and Tamaulipas (Jaumave) south to Jalisco, Hidalgo, and Mexico.

1: San Luis Potosi (plains of San Luis Potosi, 1).

<sup>1</sup> The type specimen being identical with birds from the coast region of southern Sonora, Guaymas has been suggested as type locality. Cf. Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 519, 1904, and Bangs, Bull. Mus. Comp. Zool., 70, p. 313, 1930.

<sup>2</sup> Another race has lately been described from Tiburón Island, Sonora, as *H. b. seri* van Rossem (Trans. San Diego Soc. N. H., 7, p. 133, 1932).

<sup>3</sup> *Thryothorus guttatus*, which has universally been applied to the Yucatan Cactus Wren, clearly refers to the form of the central Mexican plateau. Gould calls the pileum "brunneo-ruber" and describes the sides of the abdomen as white marked with small roundish spots ("guttis nigris parvis adpersis")—features in utter disagreement with the grayish brown head and the strongly barred flanks of the Yucatan race, but which fit the form separated by Nelson as *H. b. obscurus*. Yucatan was practically unexplored at the time of Gould's writing, and while no further locality than "Mexico" is indicated, it is rather significant that *Troglodytes leucogastra* described in the same paper is credited to Tamaulipas. It seems, therefore, much more probable that the type of *T. guttatus*, which unfortunately is no longer extant, originated from the same district.

**\*Heleodytes brunneicapillus yucatanicus** subsp. nov.<sup>1</sup> YUCATAN CACTUS WREN.

*Campylorhynchus guttatus* (not of Gould) Lawrence, Ann. Lyc. Nat. Hist. N. Y., 9, p. 199, 1869—Progreso and Celestin, Yucatan; Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 68, 1880—Yucatan; Sharpe, Cat. Bds. Brit. Mus., 6, p. 202, 1881—Yucatan; Stone, Proc. Acad. Nat. Sci. Phila., 1890, p. 211—Progreso, Yucatan.

*Heleodytes guttatus* Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 516, 1904—Yucatan (monog.); Cole, Bull. Mus. Comp. Zool., 50, p. 146, 1906—Progreso and Xbac, Yucatan.

*Range*.—Peninsula of Yucatan, Mexico.

4: Yucatan (Progreso, 1; Rio Lagartos, 2; unspecified, 1).

**\*Heleodytes jocosus jocosus** (Sclater).<sup>2</sup> BOUCARD'S CACTUS WREN.

*Campylorhynchus jocosus* Sclater, Proc. Zool. Soc. Lond., 27, p. 371, 1859—Oaxaca, Mexico (type in coll. P. L. Sclater, now in British Museum); idem, Cat. Coll. Amer. Bds., p. 17, 1862—Tehuacan, Oaxaca; Baird, Rev. Amer. Bds., 1, p. 106, 1864—Oaxaca (crit.); Lawrence, Bull. U. S. Nat. Mus., 4, p. 13, 1876—Dondominguello, Oaxaca; Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 66, 1880—Oaxaca; Sharpe, Cat. Bds. Brit. Mus., 6, p. 193, 1881—Oaxaca; Ferrari-Perez, Proc. U. S. Nat. Mus., 9, p. 135, 1886—Chietla, Puebla; Salvin and Godman, Ibis, 1889, p. 235—Sierra Madre del Sur, Guerrero.

*Heleodytes jocosus* Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 524, 1904—southeastern Mexico (monog.).

*Range*.—Southeastern Mexico, in states of Puebla, Morelos, and Guerrero, south to Oaxaca.

1: Mexico (Sierra Madre del Sur, Guerrero, 1).

<sup>1</sup>*Heleodytes brunneicapillus yucatanicus* subsp. nov.

*Type* from Rio Lagartos, Yucatan, Mexico. No. 13377 Field Museum of Natural History. Adult male. Collected April 15, 1893, by G. F. Gaumer.

*Adult*.—Not unlike *H. b. guttatus*, but upper part of the head grayish brown or light drab, deepening into wood-brown posteriorly, the feathers centered with dusky (instead of uniform vandyke brown); back more grayish, the black and white streaks much broader; flanks and under tail coverts broadly barred instead of spotted with black. Wing, 73–78; tail, 66–75; bill, 23–26.

*Remarks*.—In addition to our own specimens I have examined one from Temax and three from Yucatan, all collected by G. F. Gaumer, in the United States National Museum.

<sup>2</sup>*Heleodytes jocosus jocosus* (Sclater) differs from *H. j. gularis* by markedly longer bill, much darker and less rufescent, about mummy brown, pileum, and nearly pure white, instead of decidedly buffy, under parts with smaller as well as more numerous blackish spots.

Nine specimens examined.

\***Heleodytes jocosus gularis** (Sclater). SPOTTED CACTUS WREN.

*Campylorhynchus gularis* Sclater, Proc. Zool. Soc. Lond., 28, p. 462, 1860—"Mexico" (type in coll. P. L. Sclater, now in British Museum<sup>1</sup>); idem, Cat. Coll. Amer. Bds., p. 17, 1862—Mexico; Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 66, 1880—Mexico; Sharpe, Cat. Bds. Brit. Mus., 6, p. 194, pl. 12, fig. 2, 1881—Mexico; Salvin and Godman, Ibis, 1889, p. 235—western slope of Sierra Madre de Sonora.

*Heleodytes gularis* Nelson, Auk, 15, p. 160, 1898—mountains of southern Sinaloa and western slope of Nayarit Mountains, Tepic; Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 526, 1904—west-central Mexico (monog.); Miller, Bull. Amer. Mus. N. H., 21, p. 369, 1905—Juan Lisiarraga Mountains, Sinaloa; van Rossem, Trans. San Diego Soc. N. H., 6, p. 373, 1931—Guircocoba, Sonora.

*Heleodytes occidentalis* Nelson, Auk, 14, p. 69, 1897—Sierra Nevada de Colima, Mexico (type in U. S. National Museum).

*Heleodytes stridulus* Nelson, Proc. Biol. Soc. Wash., 13, p. 30, 1899—Sierra de Choix, northeastern Sinaloa (type in U. S. National Museum).

*Heleodytes narinusus* Phillips, Auk, 28, p. 81, 1911—Galindo, Carricitos, and Guiaves, Tamaulipas (type from Galindo in Museum of Comparative Zoology, Cambridge, Mass., examined).

**Range.**—Northern and western Mexico, south to Jalisco, Queretaro, and Michoacan, east to western Tamaulipas.<sup>2</sup>

2: Mexico (Sierra Madre, Nayarit, 1; Bolaños, Jalisco, 1).

**Genus ODONTORCHILUS** Richmond<sup>3</sup>

*Odontorhynchus* (not of Leach, 1830) Pelzeln, Orn. Bras., 1, p. 67, 1868—type, by monotypy, *Odontorhynchus cinereus* Pelzeln.

*Odontorchilus* Richmond, Proc. Biol. Soc. Wash., 28, p. 180, 1915—new name for *Odontorhynchus* Pelzeln, preoccupied.

**Odontorchilus cinereus** (Pelzeln). GRAY TOOTH-BILLED WREN.

*Odontorhynchus cinereus* Pelzeln, Orn. Bras., 1, p. 67, 1868—Salto do Girão, Rio Madeira, Brazil (type in Vienna Museum examined); Sharpe, Cat. Bds. Brit. Mus., 6, p. 403, 1881 (ex Pelzeln); Ihering and Ihering, Cat.

<sup>1</sup> The type specimen appears to be one of Floresi's skins. Floresi lived at Bolaños, Jalisco, and Nelson (Auk, 15, p. 160, 1898), accordingly, suggested this place as type locality of *C. gularis*.

<sup>2</sup> On carefully comparing four of the original specimens of *H. narinusus* with six *H. gularis* from Jalisco and Tepic (Nayarit), I am unable to find the slightest ground for their separation. The Tamaulipas birds agree in all essential characters, viz. short, stout bill, dull reddish brown (near Prout's brown) pileum, buffy under parts with sparse blackish spotting, etc., and seem to be identical with the western series.

<sup>3</sup> *Odontorchilus* Richmond, while nearly related to *Heleodytes*, differs nevertheless by shorter, apically more curved bill; the possession of a distinct subterminal "tooth" on the upper mandible; more strongly developed rectal bristles; less obtuse rectrices; much smaller size, etc.

Faun. Braz., 1, p. 322, 1907—Rio Madeira; Hellmayr, Nov. Zool., 17, p. 264, 1910—part, Salto do Girão (crit.); Snethlage, Bol. Mus. Goeldi, 8, p. 486, 1914—Rio Madeira; idem, Bol. Mus. Nac. Rio de Janeiro, 2, No. 6, p. 49, 1926—Rio Iri.

*Odontorchilus cinereus* Naumburg, Bull. Amer. Mus. N. H., 60, p. 322, 1930—  
from the Tapajóz to the Rio Madeira.

*Range*.—Northern Brazil, south of the Amazon, from the Rio Tapajóz to the upper Rio Madeira (Salto do Girão).<sup>1</sup>

**\**Odontorchilus branickii branickii* (Taczanowski and Berlepsch).<sup>2</sup>**  
**BRANICKI'S TOOTH-BILLED WREN.**

*Odontorhynchus branickii* Taczanowski and Berlepsch, Proc. Zool. Soc. Lond., 1885, p. 72, pl. 6—Machay and Mapoto, eastern Ecuador (type from Machay in Warsaw Museum; cf. Sztolcman and Domaniewski, Ann. Zool. Mus. Pol. Hist. Nat., 6, p. 153, 1927); Berlepsch and Stolzmann, l.c., 1896, p. 329—Garita del Sol, Vitoc, Dept. Junín, Peru.

*Odontorchilus branicki* [sic] Chapman, Bull. Amer. Mus. N. H., 36, p. 511, 1917—La Palma, sources of the Magdalena River, Colombia.

*Odontorchilus branickii branickii* Chapman, Bull. U. S. Nat. Mus., 117, p. 102, 1921—San Miguel Bridge, Urubamba, Peru; idem, Bull. Amer. Mus. N. H., 55, p. 564, 1926—eastern Ecuador; Zimmer, Field Mus. Nat. Hist., Zool. Ser., 17, p. 403, 1930—Huachipa, Huánuco, Peru (crit.).

<sup>1</sup> The type from Salto do Girão is an immature bird, as manifested by the fluffy texture of the body plumage and the light brownish base to the lower mandible, and resembles a female in similar stage from Colonia do Mojuy, Santarém (Carnegie Museum, No. 74980). An adult female (Carnegie Museum, No. 76915. Miritituba, Rio Tapajóz) has the top of the head more decidedly brownish, about dark hair brown, and contrasted with the mouse gray back, while the under parts, especially on throat and breast, are shaded with light buff. The lores and a narrow, dusky-edged superciliary streak are dull buffy, the auriculars dull whitish, streaked with pale brownish, and the bill is nearly entirely black. Wing (adult female) 52½, (two immature females) 52; tail, 47–49; tars., 15–16; bill, 12–13.

*Material examined*.—Brazil: Salto do Girão, Rio Madeira, 1 (the type); Rio Tapajóz (Miritituba and Colonia do Mojuy, Santarém), 2.

<sup>2</sup> *Odontorchilus branickii branickii* (Taczanowski and Berlepsch) differs from *O. cinereus* by rather more depressed, slenderer bill; markedly darker brown (anteriorly rufescent) pileum; darker, more slate gray back with much larger as well as more numerous white uropygial spots; black-streaked auriculars; pure white throat and breast; the absence of the buffy superciliary stripe, which is merely suggested by a few minute white-and-black streaks in the postocular region; and wider black bars on the under surface of the lateral rectrices. It may prove to be only subspecifically distinct from *O. cinereus*, but the latter is too incompletely known to permit final conclusion.

Birds from Colombia (La Palma), Ecuador (Machay), and Peru, apart from some seasonal variation, agree well together. Females are noticeably smaller, the wing measuring 55–56½ against 60–63 in the males.

*Material examined*.—Colombia: La Palma, 1.—Ecuador: Machay, 1.—Peru: Huachipa, Huánuco, 2; Garita del Sol, Junín, 1; Utcuyacu, Junín, 1; San Miguel Bridge, Urubamba, Cuzco, 1.

*Range*.—Tropical and Lower Subtropical zones of southeastern Colombia (La Palma, alt. 5,500 ft., sources of the Magdalena River), eastern Ecuador (Machay and Mapoto), and Peru (Huachipa, Dept. Huánuco; Garita del Sol and Utcuyacu, Dept. Junín; San Miguel Bridge, Urubamba, Dept. Cuzco).

2: Peru (Huachipa, Dept. Huánuco, 2).

**Odontorchilus branickii minor (Hartert).<sup>1</sup> LESSER TOOTH-BILLED WREN.**

*Odontorhynchus branickii minor* Hartert, Bull. Brit. Orn. Cl., 11, p. 40, 1900—Paramba, Prov. Imbabura, Ecuador (type in Tring Museum examined); idem, Nov. Zool., 27, p. 505, 1920—Paramba.

*Odontorchilus branickii minor* Chapman, Bull. Amer. Mus. N. H., 55, p. 564, 1926—Paramba (ex Hartert).

*Range*.—Tropical zone of northwestern Ecuador (Paramba, Prov. Imbabura).

**Genus THRYOTHORUS Vieillot<sup>2</sup>**

*Thriothorus* Vieillot, Analyse Nouv. Orn. Elém., p. 45 (corrected to *Thryothorus* on p. 70), 1816—type, by monotypy, “Troglodyte des roseaux, Vieillot, Ois. de l’Amér. sept.” = *Troglodytes arundinaceus* Vieillot = *Sylvia ludoviciana* Latham.

*Sphenura* Lichtenstein, Verz. Vögel Berl. Mus., pp. 7, 8, May, 1822—type by virtual monotypy, “*Sphenura coraya*” = *Turdus coraya* Gmelin (cf. Mathews, Bds. Australia, 10, p. 149, 1923).

<sup>1</sup>*Odontorchilus branickii minor* (Hartert): Very similar to *O. b. branickii*, but the four median rectrices nearly uniform slate gray, the dark bars being reduced to mere traces on the outer web.

A doubtfully distinct form. Two specimens only are known, both from Paramba, in the Tropical zone of northwestern Ecuador. The type, an adult bird marked “male,” is considerably smaller than the corresponding sex of *O. b. branickii*, and measures: wing, 53; tail, 46½. It does not materially differ in dimensions from female examples, however, and as the collector, G. Fleming, is notoriously unreliable as to sexing, it may have been a female instead. The second specimen, likewise indicated as “male,” is in the fluffy juvenile plumage, and while not differing in markings presents even smaller measurements (wing, 51; tail, 46).

More adequate material is required to establish the claims of this form to recognition.

<sup>2</sup>Under this heading I am uniting the three “genera” *Thryothorus*, *Pheugopedius*, and *Thryophilus*. As has been pointed out by van Rossem (Trans. San Diego Soc. N. H., 6, p. 208), the difference between *Thryophilus*, with open nostrils, and *Pheugopedius*, with partly operculate nasal groove, is so completely bridged by intermediate species that no dividing line can be drawn. Moreover, the two types of nostrils, used as criteria for generic distinction, even occur within the same species, the case of *Thryophilus modestus* being very appropriately cited by van Rossem as a striking example of such variation. If *Pheugopedius* and *Thryophilus* be merged, there is no valid ground for the retention of *Thryothorus*, since a good many species of so-called “*Thryophilus*” agree with the Carolina Wren in the lesser graduation of the tail.

*Hylemathrous* Wied, Beitr. Naturg. Bras., 3, (2), p. 742 (in text), 1831—  
new name for *Thryothorus* Vieillot.

*Pheugopedius* Cabanis, Mus. Hein., 1, p. 79, 1851—type, by monotypy,  
*Thryothorus genibarbis* Swainson.

*Thryophilus* Baird, Rev. Amer. Bds., 1, p. 127, 1864—type, by orig. desig.,  
*Thryothorus rufalbus* Lafresnaye.

**\**Thryothorus ludovicianus ludovicianus* (Latham). CAROLINA  
WREN.**

*Sylvia ludoviciana* Latham, Ind. Orn., 2, p. 548, 1790—based on Buffon's  
"Troglodyte de la Louisiane" and Daubenton, Pl. Enl., pl. 730, fig. 1;  
Louisiana.

*Certhia caroliniana* Wilson, Amer. Orn., 2, p. 61, pl. 12, fig. 5, 1810—along  
the shores of the Delaware thirty or forty miles below Philadelphia (type  
in Peale's Museum).

*Troglodytes arundinaceus* Vieillot, Hist. Nat. Ois. Amér. Sept., 2, p. 55, pl.  
108, "1807"—New York (exclusive of habits).

*Thryothorus littoralis* Vieillot, Nouv. Dict. Hist. Nat., nouv. éd., 34, p. 56,  
1819—new name for *Sylvia ludoviciana* Latham.

*Thriothorus louisianae* Lesson, Rev. Zool., 3, p. 264, 1840—new name for  
*Troglodytes arundinaceus* Vieillot.

*Thryothorus ludovicianus* Sharpe, Cat. Bds. Brit. Mus., 6, p. 221, 1881—  
eastern United States (excl. Rio Grande Valley).

*Thryothorus ludovicianus ludovicianus* Ridgway, Bull. U. S. Nat. Mus., 50,  
Part 3, p. 541, 1904—eastern United States (monog., full bibliog.).

*Range*.—Eastern United States, from southeastern Nebraska, southern Iowa, Ohio, southern Pennsylvania, and lower Hudson and Connecticut valleys south to central Texas, Gulf states, and northern Florida. Casual north to Wisconsin, Michigan, Ontario, Massachusetts, New Hampshire, and Maine.

55: Massachusetts (Brookline, 1); North Carolina (Raleigh, 1); Ohio (Columbus, 1); Indiana (Bluffton, 1); Illinois (Grand Chain, 5; Mound City, 3; Joliet, 1; Olive Branch, 2; Lake Forest, 1); Arkansas (Winslow, 2); Louisiana (Buras, 16; New Orleans, 1; Chef Menteur, 1); Mississippi (Holly Springs, 1; Vicksburg, 13); Texas (Corpus Christi, 1; Bowie County, 1); Florida (Mary Esther, 2; Town Point, 1).

**\**Thryothorus ludovicianus miamensis* Ridgway. FLORIDA  
WREN.**

*Thryothorus ludovicianus* var. *miamensis* Ridgway, Amer. Natur., 9, p. 469,  
1875—Miami River, Florida (type in coll. of R. Ridgway, now in U. S.  
National Museum).

*Thryothorus miamensis* Sharpe, Cat. Bds. Brit. Mus., 6, p. 222, 1881—eastern  
Florida.



*Thryothorus ludovicianus miamensis* Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 545, 1904—peninsula of Florida (monog., full bibliog.).

*Range*.—Peninsula of Florida, from the Suwanee River, Gainesville, and Palatka south.

19: Florida (Pilot Town, 2; Gainesville, 1; Palm Beach, 1; West Jupiter, 10; Wilson, 4; Nassau County, 1).

***Thryothorus ludovicianus berlandieri* Baird. BERLANDIER'S WREN.**

*Thryothorus berlandieri* Baird, Rep. Pac. R. R. Surv., 9, p. 362, 1858—Boquillo, Nuevo Leon, Mexico (type in U. S. National Museum); idem, Bds. N. Amer., pl. 83, fig. 1, 1860.

*Thryothorus berlandieri* Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 94, 1880—part, Nuevo Leon, Mexico; Sharpe, Cat. Bds. Brit. Mus., 6, p. 222, 1881—part; Salvin and Godman, Ibis, 1889, p. 236—Nuevo Leon and Tamaulipas, as far south as the eastern Sierra Madre above Ciudad Victoria.

*Thryothorus ludovicianus berlandieri* Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 546, 1904—northeastern Mexico, in states of Nuevo Leon, western Tamaulipas, and northeastern Coahuila (monog., full bibliog.); Phillips, Auk, 28, p. 81, 1911—Galindo, Santa Leonor, Guiaves, Rampa-huila, Rio Cruz, and Realito, Tamaulipas.

*Range*.—Northern Mexico, in states of Nuevo Leon, western Tamaulipas, and northeastern Coahuila (Sabinas).

**\**Thryothorus ludovicianus lomitensis* Sennett. LOMITA WREN.**

*Thryothorus ludovicianus lomitensis* Sennett, Auk, 7, p. 58, 1890—Lomita Ranch, Hidalgo County, Texas (type now in the American Museum of Natural History, New York); Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 547, 1904—lower Rio Grande Valley and northern Tamaulipas (monog., full bibliog.); Phillips, Auk, 28, p. 81, 1911—Matamoras and San Fernando, northern Tamaulipas.

*Thryothorus berlandieri* (not of Baird) Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 94, 1880—part, lower Rio Grande Valley; Sharpe, Cat. Bds. Brit. Mus., 6, p. 222, 1881—part, lower Rio Grande Valley.

*Range*.—Lower Rio Grande Valley, Texas, and northern Tamaulipas (Matamoras, Camargo, San Fernando).

4: Texas (Brownsville, 2; Cameron County, 1; Crystal City, 1).

**\**Thryothorus longirostris longirostris* Vieillot. LONG-BILLED WREN.**

*Thryothorus longirostris* Vieillot, Nouv. Dict. Hist. Nat., nouv. éd., 34, p. 56, 1819—"Brésil" (type in coll. Desmarest); Vieillot and Oudart, Gal. Ois., 1, (2), p. 275, pl. 168, 1825—"Brésil"; Sclater, Cat. Coll. Amer. Bds., p. 20, 1862—Brazil.

*Campylorhynchus striolatus* Spix, Av. Bras., 1, p. 77, pl. 79, fig. 2, 1824—"in provincia Bahia," errore, = Rio de Janeiro (type in Munich Museum examined; cf. Hellmayr, Abhandl. 2 Kl. Bayr. Akad. Wiss., 22, No. 3, p. 627, 1906).

*Thryothorus striolatus* Wied, Beitr. Naturg. Bras., 3, (2), p. 748, 1831—southeastern Brazil; Swainson, Orn. Draw., Part 2, pl. 16, 1835; Burmeister, Syst. Uebers. Th. Bras., 3, p. 135, 1856—Nova Friburgo, Rio; Pelzeln, Orn. Bras., 1, p. 47, 1868—"Minas," Rio de Janeiro (Rio, Sapitiba), and São Paulo (Santos); Euler, Journ. Orn., 15, p. 404, 1867—Cantagallo (nest).

*Thryophilus striolatus* Baird, Rev. Amer. Bds., 1, p. 132, 1864—Rio de Janeiro (diag.).

*Thryophilus longirostris* Sharpe, Cat. Bds. Brit. Mus., 6, p. 206, 1881—Brazil; Boucard and Berlepsch, The Humming Bird, 2, p. 43, 1892—"Porto Real," Rio; Ihering, Rev. Mus. Paul., 3, p. 130, 1899—Iguapé, São Paulo; idem, l.c., 4, p. 152, 1900—Cantagallo and Nova Friburgo, Rio de Janeiro; idem, l.c., p. 199, 1900 (nest); idem, Cat. Faun. Braz., 1, p. 322, 1907—Rio de Janeiro (Ilha Grande) and São Paulo (Ubatuba and Iguapé); Sztolcman, Ann. Zool. Mus. Pol. Hist. Nat., 5, p. 182, 1926—Rio de Janeiro.

*Thryophilus longirostris longirostris* Hellmayr, Verh. Zool. Bot. Ges. Wien, 51, p. 776, 1901—wooded coast region from Rio de Janeiro to Santos (diag.); Oberholser, Proc. U. S. Nat. Mus., 25, p. 67, 1902—southeastern Brazil; Underdown, Auk, 50, p. 324, 1933—Joinville, Santa Catharina.

**Range.**—Wooded coast region of southeastern Brazil, from Rio de Janeiro to Santa Catharina.<sup>1</sup>

2: Brazil (Joinville, Santa Catharina, 1; São Sebastião, São Paulo, 1).

**\**Thryothorus longirostris bahiae* (Hellmayr).<sup>2</sup> BAHIA LONG-BILLED WREN.**

*Thryophilus longirostris bahiae* Hellmayr, Journ. Orn., 51, p. 535, 1903—new name for *Thryophilus longirostris striolatus* (not *Campylorhynchus striolatus* Spix) Hellmayr, Verh. Zool. Bot. Ges. Wien, 51, p. 776, 1901—Bahia (type in Berlepsch Collection, now in Frankfurt Museum); Ihering and Ihering, Cat. Faun. Braz., 1, p. 322, 1907—Bahia; Reiser, Denks. Math.-Naturwiss. Kl. Akad. Wiss. Wien, 76, pp. 78, 170, 1910—25—

<sup>1</sup> Birds from Rio de Janeiro, São Paulo, and Santa Catharina agree well together. Oudart's plate of the type in the "Galerie des Oiseaux" is a good representation of the dark southern form, to which the original example of *C. striolatus* Spix, erroneously stated to be from Bahia, also belongs, as its reexamination in the Munich Museum clearly shows.

**Material examined.**—Rio de Janeiro: Rio de Janeiro, 5; Sapitiba, 1.—São Paulo: Iguapé, 1; São Sebastião, 1; Santos, 1.—Santa Catharina: Joinville, 1.

<sup>2</sup> *Thryothorus longirostris bahiae* (Hellmayr) differs from the typical form by reason of its much lighter coloration. The back, including wings and tail, is tawny or ochraceous tawny (instead of varying between argus brown and auburn) with the pileum less dusky, while the under parts, particularly the flanks and tail coverts, are warm buff or ochraceous buff instead of ochraceous tawny. Besides,

Parnaguá, Piahy; Hellmayr, Field Mus. Nat. Hist., Zool. Ser., 12, p. 253, 1929—Piahy (Ibiapaba, Arára, Parnaguá) and Ceará (Varzea Formosa and Serra de Baturité).

*Thryophilus longirostris* (not *Thryothorus longirostris* Vieillot) Baird, Rev. Amer. Bds., 1, p. 132, 1864—Bahia (diag.); Snethlage, Bol. Mus. Nac. Rio de Janeiro, 2, No. 6, p. 40, 1926—Ceará (crit.).

*Thryothorus longirostris* Heine and Reichenow, Nomencl. Mus. Hein., p. 48, 1890—part, Bahia.

*Thryophilus longirostris striolatus* (not *Campylorhynchus striolatus* Spix) Hellmayr, Verh. Zool. Bot. Ges., 51, p. 776, 1901—Bahia; Oberholser, Proc. U. S. Nat. Mus., 25, p. 67, 1902—Bahia.

*Range*.—Northeastern Brazil, in states of Bahia, Ceará, and Piahy.

8: Ceará (Serra de Baturité, 2; Varzea Formosa, 3); Piahy (Ibiapaba, 1; Arára, 2).

### ***Thryothorus griseus* (Todd).<sup>1</sup> GRAY WREN.**

*Thryophilus griseus* Todd, Proc. Biol. Soc. Wash., 38, p. 91, 1925—Hyutanahán, Rio Purús, Brazil (type in Carnegie Museum examined).

the auriculars are either plain white or barely streaked with dusky. Wing, 66–70, (female) 61–67; tail, 53–61; bill, 22–27.

Birds from Ceará and Piahy are perfectly identical with Bahia skins. The occurrence at Parnaguá of *T. l. bahiae*, whereas farther west at Santa Philomena *T. leucotis rufiventris* Sclater is met with, speaks for the specific distinctness of the two groups.

The present form may be discriminated from *T. l. rufiventris* by very much slenderer, nearly straight, though not always longer bill; much paler and more cinnamonaceous coloration of the upper parts; much lighter tail with the blackish bars barely half as wide and becoming irregular towards the tip; much broader, immaculate buffy white superciliaries; plain white (not dusky-streaked) auriculars; and much paler under surface, particularly on the flanks and tail coverts.

*Material examined*.—Bahia: trade skins, 4.—Ceará: Serra Baturité, 2; Varzea Formosa, 3.—Piahy: Parnaguá, 1; Ibiapaba, 1; Arára, 2.

<sup>1</sup> *Thryothorus griseus* (Todd): Above light Chaetura drab, slightly shaded with olivaceous; wing coverts like the back, the innermost of the greater series with traces of dusky transverse spots; remiges blackish, externally pale brownish olive, the tertials with a suggestion of dusky cross-bars; tail neutral gray, the median rectrices with from five to seven black bars, the lateral ones mostly black on the inner web; lores and narrow superciliary streak buffy whitish; auriculars gray, streaked with whitish; under parts smoke gray or very pale grayish olive, chin nearly white, anal region tinged with buffy; under tail coverts buffy brownish, with a few faint dusky bars; axillaries and under wing coverts grayish; narrow inner margin to the remiges dull whitish. Bill blackish, lower mandible grayish horn color; feet blackish. Wing, 54–56; tail, 35–37; tars., 17–18; bill, 15–16.

This is rather an aberrant species by reason of its very short tail, though in other structural features, particularly the open nostrils, it fits well into the subgenus "*Thryophilus*." From the other South American members of this group it may immediately be distinguished by its grayish coloration. In certain characters it recalls *Odonorchilus cinereus* (Pelzeln), but differs by much longer, basally stouter bill, much heavier legs, much shorter tail, decidedly olivaceous upper parts, grayish ventral surface with buffy abdomen, etc. Recent reexamination shows the Javarri bird, referred to as *O. cinereus* in an earlier paper of mine, to pertain to the present species.

*Material examined*.—Brazil: Hyutanahán, Rio Purús, 4; Rio Javarri, 1.

*Odontorhynchus cinereus* (not of Pelzeln) Hellmayr, Nov. Zool., 17, p. 264, 1910—part, Rio Javarri.

*Range*.—Western Brazil, from the Rio Purús (Hyutanahán) to the Rio Javarri.

**\*Thryothorus guarayanus** (Lafresnaye and d'Orbigny).<sup>1</sup> GUARAYOS WREN.

*Troglodytes guarayana* Lafresnaye and d'Orbigny, Syn. Av., 1, in Mag. Zool., 7, cl. 2, p. 26, 1837—Guarayos, Bolivia (type lost, formerly in Paris Museum); d'Orbigny, Voy. Amér. Mérid., Ois., p. 233, 1839—humid forests of the Guarayos district, eastern Bolivia.

*Thryothorus minor* Pelzeln, Orn. Bras., 1, pp. 47, 66, 1868—Villa Bella de Matto Grosso and Rio Guaporé, Matto Grosso (types in Vienna Museum examined).

*Thryophilus minor* Sharpe, Cat. Bds. Brit. Mus., 6, p. 207, 1881—Matto Grosso (ex Pelzeln); Hellmayr, Verh. Zool.-Bot. Ges. Wien, 51, p. 775, 1901—Matto Grosso and Santa Cruz, Bolivia (diag.); Ihering and Ihering, Cat. Faun. Braz., 1, p. 323, 1907—Matto Grosso and "Paraguay"; Bertoni, Faun. Parag., p. 59, 1914—Paraguay (no locality specified).

*Thryophilus albipectus minor* Hellmayr, Nov. Zool., 15, p. 16, 1908—western Matto Grosso (Villa Bella, Rio Guaporé, Corumbá, Urucúm) and eastern Bolivia (Santa Cruz de la Sierra) (diag., crit.); Lima, Rev. Mus. Paul., 12, (2), p. 94, 1920—Corumbá, Matto Grosso.

*Thryophilus rufiventris* (not of Sclater) Salvadori, Boll. Mus. Zool. Torino, 10, No. 208, p. 3, 1895—Corumbá (spec. in Turin Museum examined); idem, l.c., 15, No. 378, p. 3, 1900—Urucúm, Matto Grosso (spec. in Turin Museum examined).

*Thryophilus guarayanus guarayanus* Hellmayr, Nov. Zool., 28, p. 272, 1921—Guarayos and Santa Cruz, Bolivia (crit., nomencl.); Laubmann, Wissens. Erg. Deuts. Gran Chaco Exp., Vögel, p. 314, 1930—Buena Vista, La Crecencia, and San José, Santa Cruz de la Sierra, Bolivia (crit.).

<sup>1</sup> *Thryothorus guarayanus* (Lafresnaye and d'Orbigny) bears a striking resemblance to *T. leucotis rufiventris*, but is much smaller in all proportions, with a much shorter, weaker bill; the upper parts are duller, broccoli brown, only the lower rump and tail coverts washed with rufescent; the black tail bands narrower and less regular, often broken into zigzag lines or spots. Wing, 57–61, (female) 54–57; tail, 41–46; bill, 15–17.

Birds from Matto Grosso (*T. minor*) appear to be inseparable, although their under parts average perhaps slightly paler.

In an earlier publication I have associated this little wren with the *T. albipectus* [= *leucotis*] group, but the study of more ample material, together with a thorough investigation of its geographical distribution, leads me to accord it, at least provisionally, specific rank. It must be admitted that *T. guarayanus* and *T. leucotis rufiventris* have not yet been taken at exactly the same places, although their ranges very nearly overlap. The smaller bird is common around Corumbá, on the upper Paraguay, and again at Villa Bella, near the sources of the Rio Guaporé, while between these two localities, at Descalvados, São Luiz de Cáceres, and on the Rio São Lourenço, the larger species, *T. l. rufiventris*, is met.

*Material examined*.—Bolivia: Buena Vista, Prov. del Sara, 2; Santa Cruz de la Sierra, 2; Chiquitos (La Crecencia and San José), 2.—Brazil, Matto Grosso: Villa Bella, 5; Corumbá, 1; Urucúm, 13; Agua Blanca de Corumbá, 1.

*Thryophilus guarayanus* Naumburg, Bull. Amer. Mus. N. H., 60, p. 324, 1930—Urucúm and Agua Blanca de Urucúm, Matto Grosso (spec. examined).

**Range.**—Humid forests of eastern Bolivia and western Matto Grosso (Villa Bella, Rio Guaporé, Corumbá, Urucúm); (?) Paraguay.

6: Bolivia (Buena Vista, Dept. Santa Cruz, 1); Brazil, Matto Grosso (Urucúm de Corumbá, 5).

**\*Thryothorus leucotis rufiventris** Sclater.<sup>1</sup> RUFIOUS-BELLIED WREN.

*Thryothorus rufiventris* Sclater, Proc. Zool. Soc. Lond., 1870, p. 328—Goyaz and Matto Grosso (type in coll. of P. L. Sclater, now in British Museum).

*Thryothorus galbailhi* (not of Lawrence) Pelzeln, Orn. Bras., 1, p. 47, 1868—Rio Virissimo and Goyaz, Goyaz, and Cuyabá, Matto Grosso (spec. examined).

*Thryophilus galbailhi* Allen, Bull. Amer. Mus. N. H., 3, p. 343, 1891—Chapada, Matto Grosso.

*Thryophilus albipectus rufiventris* Hellmayr, Verh. Zool. Bot. Ges. Wien, 51, p. 775, 1901—part, Cuyabá, Matto Grosso,<sup>2</sup> Goyaz, Leopoldina, and Rio Paranahyba, Goyaz (crit., diag.); Oberholser, Proc. U. S. Nat. Mus., 25, p. 67, 1902—central Brazil; Hellmayr, Nov. Zool., 14, p. 3, 1907—Goyaz and Matto Grosso south to the Rio Grande, São Paulo; idem, l.c., 15, p. 16, 1908—Rio Thesouras, Goyaz, and Rio Araguaya, Goyaz (crit.); Ihering, Cat. Faun. Braz., 1, p. 323, 1907—part, Bebedouro, Rio Grande, São Paulo; Ménégau, Rev. Franç. d'Orn., No. 98, p. 84, 1917—Caceres, Matto Grosso.

*Thryophilus rufiventris* Reiser, Denks. Math.-Naturwiss. Kl. Akad. Wiss. Wien, 76, pp. 78, 170, 1910–25—Rio Taquarussú and Santa Philomena, Piahy.

*Thryophilus albipectus piahyensis* Hellmayr, Anz. Orn. Ges. Bay., 4, p. 26, 1921—Rio Taquarussú, Piahy (type in Vienna Museum).

<sup>1</sup> *Thryothorus leucotis rufiventris* Sclater: Nearest to *T. l. albipectus*, but bill longer; under parts (except throat) deep ochraceous, darkening to tawny-ochraceous on flanks and tail coverts. From *T. l. peruanus* distinguished by larger size, conspicuously longer bill, and brighter ochraceous under parts. Wing, 69–76, (female) 63–72; tail, 52–57, (female) 49–55; bill, 18–21, (female) 16–19.

Specimens from Minas Geraes are duller, less rufescent above, but do not differ in any other way. *T. l. piahyensis* hardly deserves recognition. The supposedly larger dimensions do not hold in the larger series since examined, and the generally longer bill of the northern birds is too insignificant a character to justify the discrimination of an additional form.

**Material examined.**—Matto Grosso: Cuyabá, 3; Descalvados, 2; Chapada, 1; Rio São Lourenço, 2.—São Paulo: Barretos, Rio Grande, 1.—Minas Geraes: Agua Suja, near Bagagem, 5.—Goyaz: Goyaz City, 6; Rio Paranahyba, 1; Rio Araguaya, 7; Rio Thesouras, 1; Santo Antonio, Boa Vista, 1.—Piahy: Santa Philomena, 3; Rio Taquarussú, 1.—Maranhão: Fazenda Inhumá, Alto Paranahyba, 2; São Francisco, 2; Grajahú, 1.

<sup>2</sup> The localities Corumbá and Urucúm (ex Salvadori) turned out to refer to *T. guarayanus*.

*Thryophilus leucotis rufiventris* Hellmayr, Field Mus. Nat. Hist., Zool. Ser., 12, p. 254, 1929—Maranhão (Fazenda Inhuma, São Francisco, Grajahú) and Goyaz (Santo Antonio) (crit.); Naumburg, Bull. Amer. Mus. N. H., 60, p. 322, 1930—Descalvados and Rio São Lourenço, Matto Grosso.

**Range.**—Tableland of Brazil, from the interior of Maranhão and Piahy through Goyaz and Matto Grosso south to southwestern Minas Geraes (Agua Suja, near Bagagem) and northern São Paulo (Rio Grande).

6: Brazil, Maranhão (Fazenda Inhuma, Alto Parnahyba, 2; São Francisco, 2; Grajahú, 1); Goyaz (Santo Antonio, Boa Vista, 1).

**\*Thryothorus leucotis peruanus (Hellmayr).<sup>1</sup> PERUVIAN WREN.**

*Thryophilus leucotis peruanus* Hellmayr, Anz. Orn. Ges. Bay., 1, No. 5, p. 41, Dec., 1921—Nauta, Rio Marañón, Peru (type in Berlepsch Collection, now in Frankfort Museum); Zimmer, Field Mus. Nat. Hist., Zool. Ser., 17, p. 404, 1930—Puerto Bermúdez, Dept. Junín, Peru (crit.).

*Thryothorus albipectus* (not of Cabanis) Sclater and Salvin, Proc. Zool. Soc. Lond., 1866, p. 178—upper and lower Ucayali, Peru; idem, l.c., 1873, p. 257—same localities.

*Thryophilus albipectus* Ihering, Rev. Mus. Paul., 6, p. 431, 1905—Rio Juruá, Brazil (spec. examined); Snethlage, Journ. Orn., 56, p. 7, 1908—Bom Lugar and Monte Verde, Rio Purús, Brazil (spec. examined).

*Thryophilus leucotis* (not *Thryothorus leucotis* Lafresnaye) Sharpe, Cat. Bds. Brit. Mus., 6, p. 207, 1881—part, spec. c, lower Ucayali, Peru; Taczanowski, Orn. Pér., 1, p. 516, 1884—Sarayacu and Rio Ucayali, Peru; Berlepsch, Journ. Orn., 34, p. 293, 1889—Tarapoto, lower Huallaga, Peru.

*Thryophilus albipectus taenioptera* (not of Ridgway) Hellmayr, Verh. Zool. Bot. Ges. Wien, 51, p. 774, 1901—part, Ucayali, Rio Tigré, and Sarayacu, Peru; Ihering and Ihering, Cat. Faun. Braz., 1, p. 323, 1907—part, Peru and Ecuador.

<sup>1</sup>*Thryothorus leucotis peruanus* (Hellmayr): Nearest to *T. l. albipectus*, but smaller, the tail in particular shorter; under parts decidedly darker, varying from deep pinkish buff to light tawny olive, this color passing into snuff brown or sayal brown on flanks and tail coverts; dorsal surface generally duller, especially on the pileum. From *T. l. bogotensis* this form may be separated by much duller (less rufous brown) upper, and much less ochraceous under parts. Wing, 63–66, (female) 60–63; tail, 42–46, (female) 41–44; bill, 16½–18.

Birds from the Rio Juruá are identical with a Peruvian series. Two specimens from the Rio Purús are brighter ochraceous below, more like certain deep-colored individuals of *T. l. albipectus*, but whether this variation has any significance remains to be determined by more ample material. While no representative of this group has yet been recorded from eastern Ecuador, *T. l. peruanus* almost certainly will be found there, as two skins of the ordinary "Bogotá" preparation are wholly typical of this race. It may be presumed that these specimens originated from some part of southeastern Colombia, since farther north, at Villavicencio, east of Bogotá, another form, *T. l. bogotensis*, is known to occur.

**Material examined.**—Peru: Nauta, 2; Rio Tigré, near Nauta, 2; upper Ucayali, 1; Chuchurras, Dept. Huánuco, 3; Puerto Bermúdez, Dept. Junín, 1.—Colombia: "Bogotá," 2 (Tring Museum).—Brazil: Rio Juruá, 2; Rio Purús, Bom Lugar, 1; Monte Verde, 1.

*Thryophilus albipectus rufiventris* (not of Sclater) Ihering and Ihering, Cat. Faun. Braz., 1, p. 323, 1907—part, Rio Juruá.

*Thryophilus rufiventris* Snethlage, Bol. Mus. Goeldi, 8, p. 492, 1914—Rio Purús (Bom Lugar, Monte Verde).

*Thryophilus albipectus* subsp. Hellmayr, Nov. Zool., 14, p. 3, 1907—Peru (Nauta; Ucayali River; Chuchurras, Huánuco), Brazil (Rio Juruá), and "Bogotá" (diag.).

**Range.**—Tropical zone of eastern Peru, south to Junín (Puerto Bermúdez), and adjoining parts of western Brazil (Rio Purús; Rio Juruá), and probably extending through eastern Ecuador to south-eastern Colombia.

1: Peru (Puerto Bermúdez, Dept. Junín, 1).

**\*Thryothorus leucotis albipectus Cabanis.<sup>1</sup> WHITE-BREASTED WREN.**

*Thryothorus albipectus* Cabanis, in Schomburgk, Reisen Brit. Guiana, 3, p. 673, "1848" [=1849]—Cayenne, French Guiana (type in Berlin Museum examined); Sclater, Cat. Coll. Amer. Bds., p. 20, 1862—part, spec. b, Cayenne.

*Thryophilus leucotis* (not *Thryothorus leucotis* Lafresnaye) Sclater and Salvin, Proc. Zool. Soc. Lond., 1867, p. 568—Marajó Island (spec. examined); Sharpe, Cat. Bds. Brit. Mus., 6, p. 207, 1881—part, spec. a, Cayenne; Salvin, Ibis, 1885, p. 201—British Guiana (not in H. Whitely's collections); Goeldi, Ibis, 1897, p. 161—Amapá, Brazil.

*Thryothorus leucotis* Pelzeln, Orn. Bras., 1, p. 47, 1868—Salto do Girão and Barra do Rio Madeira, Barra [=Manáos], and Forte do Rio Branco, Brazil (spec. examined).

<sup>1</sup> *Thryothorus leucotis albipectus* Cabanis is an exceedingly unstable form, connecting, as it does, the most intensely colored member of the group, *T. l. bogotensis*, with the palest variety, *T. l. hypoleucus*. Most of the birds from the area here assigned to it, both above and below are much paler than *T. l. bogotensis* and darker than *T. l. hypoleucus*, thus occupying an intermediate position between the two "extremes." In French and Dutch Guiana as well as in the Caura Valley, however, specimens are occasionally found, which, without knowledge of their origin, would unhesitatingly be referred to either of the neighboring races, according to their exceptionally dark or unusually pale coloration. It is on such mutants that Cherrie's record of *T. l. bogotensis* from Surinam and points on the Caura River was based. While to some extent local in so far as a certain color type in one particular district may be more prevalent than in others, the variation, taken as a whole, is too erratic to justify an attempt at further subdivision. Birds from lower Amazonia (*laenioptera*) are, on average, rather paler underneath, and mutants of the "*bogotensis*" type do not seem to occur. Still I have not been able to discover sufficiently constant characters for their separation in the limited series available for comparison.

**Material examined.**—French Guiana: Cayenne, 3; Roche-Marie, 5.—Dutch Guiana: near Paramaribo, 5; Kwata, 4.—British Guiana: Annai, 1; Demerara, 1; Quonga, 1.—Venezuela: Caura Valley (Nicare, La Union, La Pricion, Suapure, La Vuelta), 17.—Brazil: Rio Branco (Boa Vista, Serra da Lua, Forte do São Joaquim), 6; São Natal, Marajó, 3; Junegal, Mexiana, 1; Obidos, 1; Manáos, 1; Barra do Rio Madeira, 1; Itacoatiará, 1; Itaituba, Rio Tapajóz, 1; Santa Isabel, Rio Preto, 1; Calama, Rio Madeira, 1; Humaytá, Rio Madeira, 1; Ourém, Rio Guamá, Pará, 1; Tury-assú, Maranhão, 5.

*Thryophilus taenioptera* Ridgway, Proc. U. S. Nat. Mus., 10, "1887," p. 518, 1888—Diamantina, near Santarém, Brazil (type in U. S. National Museum); Riker and Chapman, Auk, 7, p. 266, 1890—Diamantina.

*Thryophilus albipectus* Berlepsch and Hartert, Nov. Zool., 9, p. 6, 1902—Suapure, La Pricion, La Union, and Nicare, Caura, Venezuela; Ihering and Ihering, Cat. Faun. Braz., 1, p. 322, 1907 (range); Berlepsch, Nov. Zool., 15, p. 106, 1908—Cayenne and Roche-Marie, French Guiana; Penard and Penard, Vog. Guyana, 2, p. 527, 1910—Surinam (habits); Snethlage, Journ. Orn., 56, pp. 497, 521, 1908—Ilha Goyana, Tapajóz, and Arumatheua, Tocantins; idem, l.c., 61, p. 518, 1913—lower Amazonia (distribution and ecology); idem, Bol. Mus. Goeldi, 8, p. 492, 1914—Pará, Rio Guamá (Ourém), Rio Tocantins (Arumatheua), Rio Xingú (Victoria), Cussary, Rio Tapajóz (Boim, Goyana), Rio Jamauchim (Tucunaré), Amapá, Marajó (Rio Arary, São Natal, Chaves), Arumanduba, Monte Alegre, Obidos, Rio Jamundá (Faro), Brazil; idem, Bol. Mus. Nac. Rio de Janeiro, 2, No. 6, p. 59, 1926—Anil and Tury-assú, Maranhão; Chubb, Bds. Brit. Guiana, 2, p. 355, 1921—upper Takutu Mountains, Ituribisci, Supenaam, Bartica, Bonasica River, and Abary River, British Guiana.

*Thryophilus albipectus albipectus* Hellmayr, Verh. Zool. Bot. Ges. Wien, 51, p. 773, 1901—Cayenne, British Guiana, Rio Branco, Rio Negro, "Mexiana" [= Marajó]; idem, Nov. Zool., 14, pp. 2, 3, 1907—Itaituba, Rio Tapajóz (crit., range); idem, l.c., p. 29, 1907—Obidos; idem, l.c., 17, p. 263, 1910—Santa Isabel (Rio Preto), Calama and Marmellos, Rio Madeira; idem, Abhandl. Math.-Phys. Kl. Bayr. Akad. Wiss., 26, No. 2, p. 86, 1912—Ourém, Rio Guamá; Cherrie, Sci. Bull., Mus. Brookl. Inst., 2, p. 147, 1916—part, Las Barrancas (Orinoco Delta) and Caura Valley (Maripa, La Union, etc.), Venezuela; Bangs and Penard, Bull. Mus. Comp. Zool., 62, p. 81, 1918—Paramaribo, Surinam.

*Thryophilus albipectus taenioptera* Hellmayr, Verh. Zool. Bot. Ges. Wien, 51, p. 774, 1901—part, Santarém, Barra do Rio Madeira, and Salto do Girão; Ihering, Cat. Faun. Braz., 1, p. 323, 1907—part, Lower Amazonia and Rio Madeira.

*Thryophilus albipectus bogotensis* (not of Hellmayr) Cherrie, Sci. Bull., Mus. Brookl. Inst., 2, p. 148, 1916—part, La Union (Caura River), Mato River, and Surinam.

*Thryophilus albipectus* subsp. Hellmayr, Nov. Zool., 14, p. 345, 1907—Humaytá, Rio Madeira.

*Thryophilus leucotis albipectus* Hellmayr, Field Mus. Nat. Hist., Zool. Ser., 12, p. 255, 1929—Tury-assú, Maranhão (crit.); Naumburg, Bull. Amer. Mus. N. H., 60, p. 322, 1930—São João, Rio Roosevelt, Matto Grosso.

*Range.*—French, Dutch, and British Guiana; eastern Venezuela (Caura Valley; Las Barrancas, Orinoco Delta, according to Cherrie); northern Brazil, from the coast of Maranhão west to the Rio Negro and Rio Madeira, south to northern Matto Grosso (São João, Rio Roosevelt).



10: Brazil (Bôa Vista, Rio Branco, 1; Serra da Lua, near Bôa Vista, Rio Branco, 1; Itacoatiará, 1; Tury-assú, Maranhão, 5); British Guiana (Hyde Park, Demerara River, 1); Venezuela (La Vuelta, Caura, 1).

***Thryothorus leucotis hypoleucus* (Berlepsch and Hartert).<sup>1</sup>**  
WHITE-BELLIED WREN.

*Thryophilus albipectus hypoleucus* Berlepsch and Hartert, Bull. Brit. Orn. Cl., 12, p. 12, Oct., 1901—Altagracia, Rio Orinoco, Venezuela (type in Tring Museum); idem, Nov. Zool., 9, p. 6, 1902—Altagracia, Caicara, Quiribana de Caicara, and Ciudad Bolivar, Rio Orinoco; Oberholser, Proc. U. S. Nat. Mus., 25, p. 67, 1902—Orinoco region; Hellmayr, Nov. Zool., 14, p. 3, 1907—middle Orinoco from Ciudad Bolivar to Ature; Cherrie, Sci. Bull., Mus. Brookl. Inst., 2, p. 148, 1916—Agua Salada de Ciudad Bolivar, Ciudad Bolivar, Altagracia, Caicara, and Quiribana de Caicara; Hartert, Nov. Zool., 27, p. 505, 1920—Altagracia (note on type).

*Thryophilus hypoleucus* Hellmayr, Verh. Zool. Bot. Ges. Wien, 51, pp. 772, 775, 1901—Altagracia, Venezuela (crit.).

*Thryophilus albipectus albipectus* (not of Cabanis) Cherrie, Sci. Bull., Mus. Brookl. Inst., 2, p. 147, 1916—part, "La Cascabel," Rio San Felix, near Caicara, Rio Orinoco.

**Range.**—Central Venezuela, on the banks of the middle Orinoco from Ciudad Bolivar to the mouth of the Apure River.

**\**Thryothorus leucotis venezuelanus* Cabanis.<sup>2</sup>** VENEZUELAN WREN.

<sup>1</sup> *Thryothorus leucotis hypoleucus* (Berlepsch and Hartert): Closely allied to *T. l. albipectus*, but under parts much paler, mostly whitish, only flanks and tail coverts washed with buffy brown; dorsal surface more olivaceous, less rufescent; tail paler, less tawny; bill and wings on average shorter. Wing, 66–69, (female) 61–64; tail, 46–51, (female) 44–47; bill, 16½–18.

Birds from Ciudad Bolivar agree perfectly, even in proportion and extent of variation, with those from farther up the river.

**Material examined.**—Ciudad Bolivar, 6; Altagracia, 10; Caicara, 3; Quiribana de Caicara, 1.

<sup>2</sup> *Thryothorus leucotis venezuelanus* Cabanis is, as correctly pointed out by W. E. C. Todd, exceedingly close to *T. l. albipectus*, from which it merely differs by having the upper parts somewhat more deeply rufous brown, thereby approaching *T. l. bogotensis*. The grayish sides of the neck, which I at one time thought to be diagnostic, are of no consequence, since this peculiarity is just as frequently lacking in *venezuelanus* as it is present in *albipectus*. Wing, 63–68, (female) 59–63; tail, 44–48, (female) 40–44; bill, 16–18.

Birds from the northern slope of the Santa Marta Mountains (Dibulla, Don Diego), while possibly slightly more rufescent above, are not separable from those of northern Venezuela, and, according to Todd, the same applies to the wrens found on the eastern side of those mountains. Four out of five specimens from El Guayabal (ten miles north of San José de Cucuta), Santander, agree perfectly with the average of *venezuelanus*, whereas the fifth individual as well as a single adult male from Valera, west of Trujillo City, on the northern slope of the Andes, Trujillo, by darker coloration of upper and lower parts forms the transition to *T. l. zuliensis*, of the heavily forested Maracaibo pocket.

**Material examined.**—Venezuela: San Esteban, 5; Las Quiguas, 7; Valera, Trujillo, 1.—Colombia: El Guayabal, Santander, 5; Dibulla, Santa Marta, 1; Don Diego, Santa Marta, 8.

*Thryothorus venezuelanus* Cabanis, Mus. Hein., 1, p. 78, 1851—Venezuela (type in Heine Collection, Halberstadt, examined).

*Thryothorus leucotis* (not of Lafresnaye) Sclater and Salvin, Proc. Zool. Soc. Lond., 1868, p. 626—San Esteban, Carabobo.

*Thryophilus leucotis* Sharpe, Cat. Bds. Brit. Mus., 6, p. 207, 1881—part, descr. spec. ex San Esteban, Venezuela.

*Thryophilus albipectus bogotensis* (not of Hellmayr) Oberholser, Proc. U. S. Nat. Mus., 25, p. 66, 1902—Don Diego, Santa Marta, Colombia (descr., crit.).

*Thryophilus albipectus venezuelanus* Hellmayr, Nov. Zool., 14, p. 3, 1907—Puerto Cabello, Venezuela (diag., crit.); idem and Seilern, Arch. Naturg., 78, A, Heft 5, p. 40, 1912—Las Quiguas, Carabobo (crit.); Todd and Carriker, Ann. Carnegie Mus., 14, p. 410, 1922—Buritaca, Don Diego, Dibulla, Arroyo de Arenas, and Fonseca (Rio Rancheria), north and east sides of Santa Marta Mountains, Colombia (crit., habits, nest, and eggs).

*Range*.—Tropical zone of northern Venezuela, from Carabobo to Trujillo (and doubtless west to Tachira), and adjacent section of eastern Colombia (near San José de Cucuta, Santander; north and east side of Santa Marta Mountains).

6: Venezuela (Valera, Trujillo, 1); Colombia (El Guayabal, ten miles north of San José de Cucuta, Santander, 5).

**\**Thryothorus leucotis zuliensis* subsp. nov.<sup>1</sup> ZULIA WREN.**

*Range*.—Heavily forested region south of Lake Maracaibo, in states of Zulia and Tachira, Venezuela.

12: Venezuela (La Uraca, Tachira, 3; Orope, Zulia, 3; El Guayábo, Zulia, 1; Encontrados, Zulia, 3; Catatumbo River, Zulia, 2).

<sup>1</sup> *Thryothorus leucotis zuliensis* subsp. nov.

*Type* from Orope, Zulia, Venezuela. No. 50224 Field Museum of Natural History. Adult male. Collected March 2, 1908, by Ned Dearborn.

*Adult*.—Nearest to *T. l. venezuelanus* Cab., but much more intensely colored; upper parts much more rufous, varying from cinnamon brown to chestnut-rufous, with the wing and tail bands darker, deep tawny or argus brown instead of ochraceous-tawny; white of throat more restricted and frequently obscured by grayish freckles; remainder of under parts generally deeper with the flanks and tail coverts antique brown or Sudan brown, sometimes approaching tawny, instead of clay-color to ochraceous-tawny. Also not unlike *T. l. bogotensis* (Hellmayr), but above much deeper, chestnut-rufous rather than between argus brown and Brussels brown; auriculars more heavily streaked with blackish; superciliaries narrower; throat less purely white; breast and abdomen decidedly darker. Wing, 64–69, (female) 60–66; tail, 44–50, (female) 41–45; bill, 16–17½.

*Remarks*.—It is with considerable reluctance that we add another one to the already long list of races of this group, but, although single individuals are not always readily told from the allied forms, the present subspecies cannot well be united to either *venezuelanus* or *bogotensis*. Apart from the usual amount of individual variation, the seven specimens from La Uraca, Orope, and El Guayábo agree well together, being much deeper, more chestnut above and much darker on the posterior lower parts. The birds from Encontrados and the Catatumbo River, however, are less typical, being more or less intermediate to *T. l. venezuelanus*, and some of them closely approach even *T. l. bogotensis*.

**Thryothorus leucotis bogotensis** (Hellmayr).<sup>1</sup> VILLAVICENCIO WREN.

*Thryophilus albipectus bogotensis* Hellmayr, Verh. Zool. Bot. Ges. Wien, 51, pp. 770, 774, 1901—"Bogotá," Colombia (type in Berlepsch Collection, now in Frankfort Museum); idem, Nov. Zool., 14, p. 3, 1907—upper Orinoco (Maipures, Perico) and "Bogotá" collections (diag.); Cherrie, Sci. Bull., Mus. Brookl. Inst., 2, p. 148, 1916—part, Perico, Maipures, Munduapo, and Nericagua, upper Orinoco, Venezuela; Chapman, Bull. Amer. Mus. N. H., 36, p. 512, 1917—Villavicencio, eastern base of eastern Andes, Colombia.

*Thryophilus leucotis* (not *Thryothorus leucotis* Lafresnaye) Sharpe, Cat. Bds. Brit. Mus., 6, p. 207, 1881—part, spec. b, Bogotá.

*Thryophilus albipectus* subsp. Berlepsch and Hartert, Nov. Zool., 9, p. 6, 1902—Perico and Maipures, upper Orinoco (crit.).

**Range.**—Central Venezuela, on the banks of the upper Orinoco (Perico, Maipures, Munduapo, Nericagua), and extending west through the plains of Colombia to the eastern base of the eastern Andes (Villavicencio).

**\*Thryothorus leucotis leucotis** Lafresnaye.<sup>2</sup> WHITE-EARED WREN.

*Thryothorus leucotis* Lafresnaye, Rev. Zool., 8, p. 338, 1845—"in Colombia aut Mexico," we suggest Honda, Rio Magdalena, Colombia (type, now in Museum of Comparative Zoology, Cambridge, Mass., examined; cf. Bangs, Bull. Mus. Comp. Zool., 70, p. 315, 1930); Wyatt, Ibis, 1871, p. 321—Catamucho, 100 miles above Barranquilla, Magdalena River.

<sup>1</sup> *Thryothorus leucotis bogotensis* (Hellmayr): Similar to *T. l. venezuelanus*, but above decidedly more rufescent, and under parts (below the white throat) considerably darker, ochraceous-buff to ochraceous-tawny (instead of mainly buffy white or delicate buff, passing laterally into light ochraceous-tawny). Wing (male), 64-69; tail, 46-52; bill, 16½-18.

Two specimens from the upper Orinoco are precisely similar to others from Villavicencio, which, in their turn, agree with the type and other "Bogotá" skins.

**Material examined.**—Venezuela, upper Orinoco: Perico, 1; Maipures, 1.—Colombia: Villavicencio, 4; "Bogotá," 5.

<sup>2</sup> *Thryothorus leucotis leucotis* Lafresnaye is a very distinct form, differing from its geographical neighbor, *T. l. venezuelanus*, by light broccoli brown (instead of Brussels brown to Amber brown) dorsal surface with a slight clay-color tinge on rump and tail coverts; much paler, tawny olive instead of tawny, wing and tail bands; paler, clay-color rather than ochraceous, sides and under tail coverts. On the other hand, it is closely allied to *T. l. galbraithii*, but may be distinguished by being somewhat paler above with the rump and tail coverts much less rufous (clay-color instead of tawny), while the tail bands and the posterior under parts are likewise much less rufescent. Wing (male), 63-69; tail, 46-52; bill, 16-18.

"Bogotá" skins agree in every particular with a series from the Magdalena Valley. Birds from Santa Marta and Cartagena are identical in coloration, but slightly smaller (wing of males, 63-65½ against 66-69), which seems hardly sufficient to maintain *pallascens* as distinct.

**Material examined.**—Santa Marta, 3; Bonda, 2; Cartagena, 2; Barranquilla, 1.—Magdalena Valley: Algodonal, 1; Puerto Berrio, 2; Honda, 2; Chicoral, 2.—"Bogotá," 7.

*Thryophilus leucotis* Hellmayr, Verh. Zool. Bot. Ges. Wien, **51**, pp. 768, 773, 1901—"Bogotá," Colombia (crit., descr.); Chapman, Bull. Amer. Mus. N. H., **36**, p. 511, 1917—Algodonal, Puerto Berrio, Malena, Honda, and Chicoral, Magdalena Valley, Colombia.

*Thryophilus leucotis leucotis* Todd and Carriker, Ann. Carnegie Mus., **14**, p. 411, 1922—Bonda, Fundación, and Tukurinca, west side of Santa Marta Mountains, Colombia (crit., habits); Darlington, Bull. Mus. Comp. Zool., **71**, p. 407, 1931—Rio Frio, west side of Santa Marta.

*Thryothorus* spec. Cassin, Proc. Acad. Nat. Sci. Phila., 1860, p. 193—part, Cartagena.

*Thryothorus albipectus* (not of Cabanis) Sclater, Cat. Coll. Amer. Bds., p. 20, 1862—part, spec. a, Santa Marta.

*Thryophilus galbraithi* (not of Lawrence) Baird, Rev. Amer. Bds., **1**, p. 131, 1864—part, Cartagena.

*Thryophilus galbraithii galbraithii* Ridgway, Bull. U. S. Nat. Mus., **50**, Part 3, p. 637, 1904—part, Cartagena, Colombia.

*Thryophilus pallescens* (Lawrence MS.) Ridgway, Bull. U. S. Nat. Mus., **50**, Part 3, p. 624, 1904—Barranquilla, Colombia (type in the American Museum of Natural History, New York, examined).

*Range*.—Tropical zone of the Magdalena Valley, Colombia, from Cartagena and Barranquilla up to Honda and Chicoral (west of Giradot).

2: Colombia (Cartagena, Bolivar, 2).

**\*Thryothorus leucotis galbraithii** Lawrence. GALBRAITH'S WREN.

*Thryothorus galbraithii* Lawrence, Ann. Lyc. Nat. Hist. N. Y., **7**, p. 320, 1861—Lion Hill, Panama Railroad (type now in the American Museum of Natural History, New York); Tristram, Cat. Coll., p. 167, 1889—Panama.

*Thryothorus* spec. Cassin, Proc. Acad. Nat. Sci. Phila., 1860, p. 193—part, Turbo, Colombia.

*Thryothorus albipectus* (not of Cabanis) Sclater and Salvin, Proc. Zool. Soc. Lond., 1864, p. 345—Panama Railroad (crit.).

*Thryophilus galbraithi* Baird, Rev. Amer. Bds., **1**, p. 131, 1864—part, Isthmus of Panama and Turbo (crit.); Sharpe, Cat. Bds. Brit. Mus., **6**, p. 218, 1881—Paraiso Station, Panama; Bangs, Proc. New Engl. Zool. Cl., **2**, p. 27, 1900—Loma del Leon, Panama.

*Thryophilus albipectus galbraithi* Hellmayr, Verh. Zool. Bot. Ges. Wien, **51**, pp. 770, 774, 1901—Isthmus of Panama and Darien (diag.); idem, Nov. Zool., **14**, p. 4, 1907—Panama (diag.).

*Thryophilus galbraithii galbraithii* Ridgway, Bull. U. S. Nat. Mus., **50**, Part 3, p. 637, 1904—part, Isthmus of Panama (Panama, Lion Hill, Paraiso Station) and Turbo, Colombia (monog.); Thayer and Bangs, Bull. Mus. Comp. Zool., **46**, p. 220, 1906—savanna of Panama; Chapman, Bull. Amer. Mus. N. H., **36**, p. 512, 1917—Rio Salaquí, northwestern Colombia; Stone, Proc. Acad. Nat. Sci. Phila., **70**, p. 271, 1918—Gatun,

Panama; Bangs and Barbour, *Bull. Mus. Comp. Zool.*, **65**, p. 222, 1922—Mount Sapo, Darien.

*Thryophilus leucotis* (not *Thryothorus leucotis* Lafresnaye) Salvin and Godman, *Biol. Centr.-Amer., Aves*, **1**, p. 85, 1880—part, Lion Hill (Panama) and Turbo (Darien); Oberholser, *Proc. U. S. Nat. Mus.*, **25**, p. 67, 1902—Panama.

*Thryophilus leucotis galbraithi* Griscom, *Bull. Mus. Comp. Zool.*, **69**, p. 181, 1929—El Real, Darien.

*Range*.—Eastern Panama, from the Panama Canal zone eastwards, and extreme northwestern Colombia (Rio Salaquí and Turbo).<sup>1</sup>

1: Panama (Colón), 1.

### *Thryothorus leucotis conditus* (Bangs).<sup>2</sup> SAN MIGUEL WREN.

*Thryophilus galbraithi(i) conditus* Bangs, *Proc. New Engl. Zool. Cl.*, **4**, p. 31, 1903—San Miguel Island, Gulf of Panama (type now in Museum of Comparative Zoology, Cambridge, Mass.; cf. Bangs, *Bull. Mus. Comp. Zool.*, **70**, p. 315, 1930); Ridgway, *Bull. U. S. Nat. Mus.*, **50**, Part 3, p. 638, 1904—San Miguel Island; Thayer and Bangs, *Bull. Mus. Comp. Zool.*, **46**, p. 154, 1905—San Miguel Island; Rendahl, *Ark. Zool.*, **13**, No. 4, p. 43, 1920—Viveros, Pearl Islands.

*Thryophilus galbraithi* (not *Thryothorus galbraithii* Lawrence) Bangs, *Auk*, **18**, p. 30, 1901—San Miguel Island.

*Range*.—Islands of San Miguel and Viveros, Pearl Archipelago, Gulf of Panama; (?) Coiba Island, Gulf of Alanje.

### *Thryothorus superciliaris superciliaris* Lawrence.<sup>3</sup> SUPERCILIATED WREN.

*Thryothorus superciliaris* Lawrence, *Ann. Lyc. Nat. Hist. N. Y.*, **9**, p. 235, 1869—Puna Island, Ecuador (type in U. S. National Museum).

<sup>1</sup> A single adult female from Colombia (Rio Salaquí, Chocó) agrees with Panama specimens except in having the middle back, scapulars and upper tail coverts more conspicuously barred with dusky. This variation is likely to be individual.

*Material examined*.—Panama: Panama (City), 3; Colón, 1; Lion Hill, 5.—Colombia: Rio Salaquí, 1.

<sup>2</sup> *Thryothorus leucotis conditus* (Bangs) is described as similar to *T. l. galbraithii*, but slightly larger and darker. We have no material from San Miguel. Two adult males from Coiba Island (Tring Museum), when compared to a Panama series, differ by very slightly longer wings (67–68 against 64–67 mm.), stronger bills, and a trifle more rufescent upper parts. They thus seem to correspond to the characters of *T. l. conditus*, though direct comparison with topotypical specimens is required to establish their identity or otherwise.

<sup>3</sup> Relationship and geographic origin of this wren are obscure. From the *T. leucotis* group it differs by longer, heavier bill; much broader, wholly unstreaked white superciliaries; immaculate white auriculars; white under parts with the flanks and tail coverts only pinkish buff; paler wings and tail, etc.

*Material examined*.—Ecuador: Puna Island, 2; Guayaquil, 2; Balzar, 1.

*Thryothorus albipectus* (not of Cabanis) Selater, Proc. Zool. Soc. Lond., 28, p. 273, 1860—Babahoyo; idem, Cat. Coll. Amer. Bds., p. 20, 1862—part, spec. c, d, Babahoyo; Heine and Reichenow, Nomencl. Mus. Hein., p. 48, 1890—Babahoyo.

*Thryophilus superciliaris* Sharpe, Cat. Bds. Brit. Mus., 6, p. 210, 1881—Guayaquil and Puna Island; Berlepsch, Proc. Zool. Soc. Lond., 1885, p. 117—Babahoyo and Puna Island; Salvadori and Festa, Boll. Mus. Zool. Torino, 14, No. 357, p. 6, 1899—Guayaquil, Balzar, and Puntilla de Santa Elena; Hellmayr, Verh. Zool. Bot. Ges. Wien, 51, p. 776, 1901—part, hab. Babahoyo and Puna Island; idem, l.c., 52, pp. 169, 170, 1902—Babahoyo, Guayaquil, Puna Island (diag.); Oberholser, Proc. U. S. Nat. Mus., 25, p. 67, 1902—western Ecuador.

*Thryophilus superciliaris superciliaris* Chapman, Bull. Amer. Mus. N. H., 55, p. 564, 1926—Manta, Santa Elena, Puna Island, Babahoyo, and Guayaquil, Ecuador.

**Range.**—Arid Tropical zone of the Pacific coast of Ecuador from Puna Island north to Manta.

***Thryothorus superciliaris baroni* (Hellmayr).<sup>1</sup> BARON'S WREN.**

*Thryophilus baroni* Hellmayr, Verh. Zool. Bot. Ges. Wien, 52, p. 170, 1902—Tembladera, Peru (type in Berlepsch Collection, now in the Frankfurt Museum).

*Thryothorus superciliaris* (not of Lawrence) Taczanowski, Proc. Zool. Soc. Lond., 1877, pp. 319, 749—Tumbez (eggs descr.).

*Thryophilus superciliaris* Taczanowski, Orn. Pér., 1, p. 514, 1884—Tumbez, Guadalupe (Libertad), and Chimbote (Ancachs); Hellmayr, Verh. Zool. Bot. Ges. Wien, 51, pp. 772, 776, 1901—part, diag. and hab., Tumbez, Pacasmayo, Tembladera, and Chimbote, Peru.

*Thryophilus superciliaris baroni* Chapman, Bull. Amer. Mus. N. H., 55, p. 565, 1926—Jambeli Island and Casanga, Ecuador, and Tumbez, Chilaco, Lamor, and Samate, Peru (crit.).

**Range.**—Arid Tropical zone of the Pacific coast of extreme southwestern Ecuador (from Machala southward) and western Peru, south to Chimbote, Dept. Ancachs.

**\**Thryothorus modestus pullus* (Ridgway).<sup>2</sup> CHIAPAS WREN.**

<sup>1</sup> *Thryothorus superciliaris baroni* (Hellmayr): Similar to *T. s. superciliaris*, but much more rufescent; back and rump bright tawny (instead of brownish ochraceous-tawny); wings ochraceous-tawny to tawny rather than tawny olive; tail deeper tawny, less ochraceous; flanks and under tail coverts much darker, cinnamon rather than pinkish buff. Size the same.

**Material examined.**—Peru: near Tumbez, Tumbez, 3; Pacasmayo, 3; Tembladera, Lambayeque, 6.

<sup>2</sup> A very unsatisfactory race hardly worthy of recognition. In the material examined none of the characters claimed by Ridgway holds good except a slight average difference in the coloration of the upper parts, which are a little more brownish, less rufescent. The variation in the markings of the middle rectrices seems to be purely individual.

In addition to specimens in Field Museum collections, two specimens from Chiapas and two from Retalhuleu, Guatemala, have been examined.

*Thryophilus modestus pullus* Ridgway, Proc. Biol. Soc. Wash., 16, p. 167, 1903—Huehuetan, Chiapas (type in U. S. National Museum); idem, Bull. U. S. Nat. Mus., 50, Part 3, p. 641, 1904—Chiapas, western Guatemala, and Honduras (monog.).

*Thryothorus felix* (?) (not of Sclater, 1859) Sclater and Salvin, Ibis, 1860, p. 397—Escuintla, Guatemala.

*Thryothorus albipectus* (not of Cabanis) Sclater, Cat. Coll. Amer. Bds., p. 20, 1862—part, spec. e, Escuintla, Guatemala.

*Thryophilus modestus* (not *Thryothorus modestus* Cabanis) Baird, Rev. Amer. Bds., 1, p. 131, 1864—part, Dueñas, Guatemala; Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 83, 1880—part, Guatemala and Honduras (San Pedro); Sharpe, Cat. Bds. Brit. Mus., 6, p. 209, 1881—part, Guatemala; Dearborn, Field Mus. Nat. Hist., Orn. Ser., 1, p. 134, 1907—Gualan, Lake Atitlan, Lake Amatitlan, Patulul, and San José, Guatemala (crit.).

*Thryothorus modestus* Salvin, Ibis, 1866, p. 205—Pacific coast and near Coban, Guatemala (crit.); Sclater and Salvin, Proc. Zool. Soc. Lond., 1870, p. 836—Honduras.

**Range.**—Extreme southern Mexico (in State of Chiapas), Guatemala, El Salvador, and (?) extreme northwestern Honduras (San Pedro).

12: Guatemala (San José, 4; Lake Atitlan, 1; Patulul, Solola, 3; Lake Amatitlan, 3; Gualan, Zacapa, 1).

**\**Thryothorus modestus modestus* Cabanis. CABANIS'S WREN.**

*Thryothorus modestus* Cabanis, Journ. Orn., 8, p. 409, 1860—San José, Costa Rica (type in Berlin Museum); Sclater, Cat. Coll. Amer. Bds., p. 358, 1862—San José, Costa Rica.

*Thryophilus modestus* Baird, Rev. Amer. Bds., 1, p. 131, 1864—part, San José, Costa Rica; Lawrence, Ann. Lyc. Nat. Hist. N. Y., 9, p. 92, 1868—San José, Guatitlan, and San Mateo, Costa Rica; Frantzius, Journ. Orn., 17, p. 291, 1869—highlands of Costa Rica; Boucard, Proc. Zool. Soc. Lond., 1878, p. 51—San José, Cartago, and San Mateo, Costa Rica; Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 83, 1880—part, Costa Rica; Sharpe, Cat. Bds. Brit. Mus., 6, p. 209, 1881—part, Costa Rica; Zeledón, Anal. Mus. Nac. Costa Rica, 1, p. 105, 1887—Alajuela, San José, Navarro de Cartago, Pózo Azul de Pirris; Ridgway, Proc. U. S. Nat. Mus., 5, pp. 494, 499, 1883—Volcán de Irazú and San José; Cherrie, l.c., 14, p. 520, 1891—Costa Rica (crit.); idem, Auk, 8, p. 275, 1891—San José (habits; juv. descr.); idem, Anal. Inst. Fis.-Geog. Mus. Nac. Costa Rica, 4, p. 135, 1893—Palmar, Lagarto, Boruca, Térraba, and Buenos Aires, southwestern Costa Rica (altitudinal range).

*Thryophilus modestus modestus* Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 639, 1904—Costa Rica<sup>1</sup> (monog.); Bangs, Auk, 24, p. 305, 1907—Boruca, Paso Real, and El Pózo de Térraba, southwestern Costa Rica

<sup>1</sup> "Nicaragua" appears to be a pen-slip.

(crit.); Carriker, Ann. Carnegie Mus., 6, p. 755, 1910—Costa Rican highlands and Pacific slope, descending on the Caribbean side to an altitude of 3,000 feet (habits).

*Range*.—Costa Rica (on the Pacific side from sea level to the plateau region, and on the upper Caribbean slope from 3,000 to 7,000 feet altitude).

8: Costa Rica (San José, 3; Cartago, 3; Juan Viñas, 1; Boruca, 1).<sup>1</sup>

**\*Thryothorus modestus elutus (Bangs).<sup>2</sup> PANAMA WREN.**

*Thryophilus modestus elutus* Bangs, Proc. New Engl. Zool. Cl., 3, p. 51, 1902—Boquete, Chiriquí, and Loma del Leon, Panama (type, from Loma del Leon, now in Museum of Comparative Zoology, Cambridge, Mass.; cf. Bangs, Bull. Mus. Comp. Zool., 70, p. 315, 1930); Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 640, 1904—Panama north to Chiriquí and "Veragua (Bugaba)" (monog.); Thayer and Bangs, Bull. Mus. Comp. Zool., 46, p. 220, 1906—savanna of Panama; Stone, Proc. Acad. Nat. Sci. Phila., 70, p. 271, 1918—Gatun, Panama; Hallinan, Auk, 41, p. 325, 1924—Sosa Hill, Farfan, and Gorgona, Panama Canal Zone.

*Thryothorus leucotis* (not of Lafresnaye) Lawrence, Ann. Lyc. Nat. Hist. N. Y., 7, p. 320, 1862—Panama Railroad.

*Thryothorus modestus* (not of Cabanis) Lawrence, Ann. Lyc. Nat. Hist. N. Y., 8, p. 5, 1863—Panama Railroad (crit.); Sclater and Salvin, Proc. Zool. Soc. Lond., 1864, p. 346—Panama Railroad; Salvin, l.c., 1870, 181—Bugaba, Chiriquí.

*Thryophilus modestus* Baird, Rev. Amer. Bds., 1, p. 131, 1864—part, Panama Railroad; Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 83, 1880—part, Panama (Bugaba, Panama Railroad); Bangs, Proc. New Engl. Zool. Cl., 2, p. 27, 1900—Loma del Leon, Panama; idem, Auk, 18, p. 368, 1901—Divala, Chiriquí.

*Range*.—Western Panama, from the Canal Zone west to Chiriquí (Bugaba, Boquete, Divala, Frances, Pedregal).

5: Panama (Balboa, 1; Colón, 2; Boquete, 1; Frances, 1).

**\*Thryothorus modestus zeledoni (Ridgway).<sup>3</sup> ZELEDÓN'S WREN.**

<sup>1</sup> *Additional specimens examined*.—San José, 1; Altos de Escazú, San José, 1; Puerto Jiménez, 1; Buenos Aires, 1; Lagarto, Río Grande, 1; Boruca, 2.

<sup>2</sup> This form, too, is of very doubtful validity, and I am just able to appreciate slight average differences in size and coloration. *T. m. elutus* lives side by side with *T. leucotis galbraithii* in the Canal Zone, which indicates the specific distinctness of the two groups.

<sup>3</sup> Though well characterized by much larger feet and bill, much duller and less brownish upper parts with brownish instead of rufescent wings and tail, and much less fulvous flanks and under tail coverts, *T. m. zeledoni* is clearly conspecific with *T. modestus*, which it replaces in the Caribbean lowlands of Costa Rica and the adjacent districts of Nicaragua and Panama. Certain specimens of *T. m. modestus*, in one or several respects, exhibit an unmistakable tendency towards the characters of *T. m. zeledoni*, though intergradation, especially in dimensions, is far from being complete.



*Thryophilus zeledoni* (Lawrence MS.) Ridgway, Proc. U. S. Nat. Mus., 1, p. 252, Dec., 1878—Atlantic lowlands of Costa Rica (type from "Talamanca" now in U. S. National Museum); Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 84, 1880—Costa Rica, Atlantic lowlands; Sharpe, Cat. Bds. Brit. Mus., 6, p. 210, 1881—Costa Rica; Zeledón, Anal. Mus. Nac. Costa Rica, 1, p. 105, 1887—Pacuaré; Nutting, Proc. U. S. Nat. Mus., 6, p. 398, 1884—Los Sábalos, Nicaragua; Cherrie, l.c., 14, p. 520, 1891—Costa Rica (crit.); Richmond, l.c., 16, p. 483, 1893—Greytown, Nicaragua; Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 642, 1904—eastern Costa Rica (Talamanca, Pacuaré) and Nicaragua (Greytown, Los Sábalos) (monog.); Carriker, Ann. Carnegie Mus., 6, p. 755, 1910—eastern Costa Rica (Cachí, Cuábre, Río Sicsola de Talamanca, Guápiles); Kennard and Peters, Proc. Bost. Soc. N. H., 38, p. 459, 1928—Almirante, northwestern Panama; Peters, Bull. Mus. Comp. Zool., 71, p. 330, 1931—Almirante and Bocas, Panama.

*Range*.—Caribbean lowlands, upwards to about 1,000 feet elevation, of Nicaragua (Greytown, Los Sábalos), Costa Rica (Pacuaré, Cachí, Cuábre, Río Sicsola de Talamanca, Guápiles, Matina, Limón, La Iberia), and northwestern Panama (Almirante Bay).

4: Costa Rica (Matina, 1; Limón, 2; La Iberia Farm, alt. 500 ft., foot of Volcan de Turrialba, 1).

**\*Thryothorus sinaloa sinaloa (Baird).<sup>1</sup> SINALOA WREN.**

*Thryophilus sinaloa* Baird, Rev. Amer. Bds., 1, p. 130, 1864—Mazatlan, Sinaloa, and Colima, Mexico (type from Mazatlan in U. S. National Museum); Lawrence, Mem. Bost. Soc. N. H., 2, p. 268, 1874—Mazatlan and Colima; Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 83, 1880—same localities; Sharpe, Cat. Bds. Brit. Mus., 6, p. 213, 1881—western Mexico; Jouy, Proc. U. S. Nat. Mus., 16, p. 777, 1894—Barranca Ibarra, Jalisco.

*Thryophilus sinaloa sinaloa* Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 635, 1904—western Mexico, in states of Sinaloa, Jalisco, Colima, and Nayarit (monog.); Miller, Bull. Amer. Mus. N. H., 21, p. 368, 1905—Escuinapa, Juan Lisiarraga Mountains, and Juanna Gomez River, Sinaloa; McLellan, Proc. Calif. Acad. Sci., (4), 16, p. 39, 1927—Labrados, Sinaloa, and San Blas, Nayarit.

*Range*.—Western Mexico, in states of Sinaloa, Jalisco, Colima, and Nayarit.

5: Mexico (Tuxpan, Jalisco, 1; Colima, 2; San Blas, Nayarit, 1; Tepic, 1).

**\*Thryothorus sinaloa cinereus (Brewster). ASHY WREN.**

*Thryophilus sinaloa cinereus* Brewster, Auk, 6, p. 96, 1889—Alamos, Sonora (type now in Museum of Comparative Zoology, Cambridge, Mass.; cf.

<sup>1</sup> *Thryothorus sinaloa*, though allied to *T. rufalbus*, is smaller and presents various striking differences in coloration. It may, however, prove to be conspecific.

Bangs, Bull. Mus. Comp. Zool., **70**, p. 316, 1930); Ridgway, Bull. U. S. Nat. Mus., **50**, Part 3, p. 636, 1904—northwestern Mexico, in states of Sonora, Chihuahua, and Durango (monog.).

*Phlegopedius sinaloa cinereus* van Rossem, Trans. San Diego Soc. N. H., **6**, p. 272, 1931—San Javier and Guiracoba, Sonora.

**Range.**—Northwestern Mexico, in states of Sonora, Chihuahua, and Durango.

1: Mexico (Ysleta, Sonora, 1).

**Thryothorus sinaloa russeus** (Nelson).<sup>1</sup> RUSSET WREN.

*Thryophilus sinaloa russeus* Nelson, Proc. Biol. Soc. Wash., **16**, p. 157, 1903—Acahuitzotla, Guerrero (type in U. S. National Museum); Ridgway, Bull. U. S. Nat. Mus., **50**, Part 3, p. 637, 1904—Acahuitzotla (monog.).

**Range.**—Only known from the type locality, Acahuitzotla, in State of Guerrero, southwestern Mexico.

**\*Thryothorus rufalbus rufalbus** Lafresnaye.<sup>2</sup> RUFOUS-AND-WHITE WREN.

*Thryothorus rufalbus* Lafresnaye, Rev. Zool., **8**, p. 337, 1845—"Mexico," errore, = Guatemala (type now in Museum of Comparative Zoology, Cambridge, Mass.; cf. Bangs, Bull. Mus. Comp. Zool., **70**, p. 315, 1930).

*Thryothorus rufalbus* Sclater and Salvin, Ibis, 1859, p. 8—Dueñas, Guatemala.

*Thryophilus rufalbus* Salvin and Godman, Biol. Centr.-Amer., Aves, **1**, p. 82, 1880—part, Guatemala (Volcan de Fuego, Dueñas, Savanna Grande, San Diego, Escuintla, Retalhuleu, Coban); Sharpe, Cat. Bds. Brit. Mus., **6**, p. 212, 1881—part, Guatemala; Ridgway, Proc. Bost. Soc. N. H., **23**, p. 386, 1888 (crit., note on type); Dearborn, Field Mus. Nat. Hist., Orn. Ser., **1**, p. 134, 1907—Mazatenango, Guatemala.

*Thryophilus rufalbus rufalbus* Ridgway, Bull. U. S. Nat. Mus., **50**, Part 3, p. 623, 1904—Guatemala (monog.).

*Thryophilus rufalbus* var. *poliopleura* Baird, Rev. Amer. Bds., **1**, p. 128, 1864—Savanna Grande, Guatemala (type in U. S. National Museum).

**Range.**—Highlands of Guatemala.

2: Guatemala (Mazatenango, 2).

**\*Thryothorus rufalbus castanonotus** (Ridgway).<sup>3</sup> CHESTNUT-BACKED WREN.

<sup>1</sup> This race is autoptically unknown to the author.

<sup>2</sup> Five Guatemalan birds differ from *T. r. castanonotus* by deeper chestnut rufous upper parts and almost wholly grayish flanks, with very little, if any, brownish suffusion. Ridgway has shown the type of *T. rufalbus* to be referable to the Guatemalan form separated by Baird as *T. r.* var. *poliopleura*.

<sup>3</sup> *Thryothorus rufalbus castanonotus* (Ridgway): Similar to *T. r. rufalbus*, but somewhat lighter rufous above, blackish tail bands as a rule wider, and flanks decidedly tawny-brownish. The sides of the head are just as heavily streaked with blackish as in the nominate race.

Birds from Nicaragua and Costa Rica agree well together. Two from Chiriquí are also wholly typical of this form, but a third specimen taken by Watson on

*Thryophilus rufalbus castanonotus* Ridgway, Proc. Bost. Soc. N. H., 23, p. 386 (in text), March, 1888—from Nicaragua to the "highlands of Colombia" (part; type from Angostura, Costa Rica, in U. S. National Museum; cf. Ridgway, Proc. U. S. Nat. Mus., 10, p. 508, 1888); Zeledón, Anal. Mus. Nac. Costa Rica, 1, p. 105, 1887—Monte Redondo, Pózo Azul de Pirris, and Alajuela, Costa Rica (no description); Cherrie, Proc. U. S. Nat. Mus., 14, p. 519, 1891—Costa Rica (crit., juv.); idem, Anal. Inst. Fis.-Geog. Mus. Nac. Costa Rica, 4, p. 135, 1893—Boruca, Costa Rica; Bangs, Auk, 18, p. 368, 1901—Divala and David, Chiriquí; Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 633, 1904—part, Nicaragua, Costa Rica, and Panama (monog.); Thayer and Bangs, Bull. Mus. Comp. Zool., 46, p. 220, 1906—Savanna of Panama; Bangs, Auk, 24, p. 305, 1907—Boruca, Paso Real, and Lagarto [de Terraba], Costa Rica; Carriker, Ann. Carnegie Mus., 6, p. 756, 1910—Pacific slope of Costa Rica (nest and egg descr.); Hallinan, Auk, 41, p. 325, 1924—Sosa Hill, Panama Canal Zone.

*Thryothorus rufalbus castanonotus* Ridgway, Proc. U. S. Nat. Mus., 10, "1887," p. 508, pub. Aug., 1888—part, Nicaragua to Panama (type stated to be from Angostura, Costa Rica).

*Thryothorus rufalbus* (not of Lafresnaye) Sclater, Proc. Zool. Soc. Lond., 24, p. 140, 1856—David, Chiriquí; Cabanis, Journ. Orn., 8, p. 408, 1860—part, Costa Rica (crit.); Lawrence, Ann. Lyc. Nat. Hist. N. Y., 8, p. 5, 1863—Panama Railroad; idem, l.c., 8, p. 175, 1865—David, Chiriquí; Sclater and Salvin, Proc. Zool. Soc. Lond., 1864, p. 345—Isthmus of Panama; Salvin, l.c., 1867, p. 134—David, Chiriquí; idem, l.c., 1870, p. 181—Chitrá, Castillo, and Calovévora, Veraguas.

*Thryophilus rufalbus* var. *rufalbus* Baird, Rev. Amer. Bds., 1, p. 128, 1864—part, Isthmus of Panama and Costa Rica.

*Thryophilus rufalbus* Lawrence, Ann. Lyc. Nat. Hist. N. Y., 9, p. 92, 1868—San Mateo, Costa Rica; Frantzius, Journ. Orn., 17, p. 291, 1869—San José, Costa Rica; Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 82, 1880—part, Costa Rica and Panama; Sharpe, Cat. Bds. Brit. Mus., 6, p. 212, 1881—part, Panama, Veragua, and Costa Rica; Ridgway, Proc. U. S. Nat. Mus., 5, p. 390, 1882—La Palma de Nicoya, Costa Rica; idem, l.c., 6, p. 381, 1883—Sucuyá, Nicaragua.

*Thryothorus longirostris* (not of Vieillot) Lawrence, Ann. Lyc. Nat. Hist. N. Y., 7, p. 320, 1861—Lion Hill, Panama.

**Range.**—Pacific slope of Nicaragua (Sucuyá; San Emilio) and Costa Rica<sup>1</sup> south through western Panama to the Canal Zone.

7: Nicaragua (San Emilio, Lake Nicaragua, 2); Costa Rica (Las Cañas, 2; Lagarto, 3).

November 12, 1905, at Frances, Chiriquí, as well as one from Paraiso Station, Isthmus of Panama, are markedly lighter rufous above, more like *T. r. cumanensis*. This seems to indicate that the inhabitants of Panama might form the transition to the Caribbean race of northern South America.

**Material examined.**—Nicaragua: San Emilio, 2.—Costa Rica: Las Cañas, 2; Miravalles, 3; Lagarto, 4; Pózo Azul, 1; Bolson, 1.—Panama: Chiriquí, 2; Frances, 1; Paraiso Station, Isthmus of Panama, 1.

<sup>1</sup> One record from Caribbean Costa Rica (Angostura, Rio Reventazón).

**\*Thryothorus rufalbus cumanensis (Cabanis).<sup>1</sup> CUMANÁ WREN.**

*Troglodytes cumanensis* (ex Lichtenstein MS.) Cabanis, Journ. Orn., 8, p. 408 (in text), 1860—Cartagena, Colombia (type in Berlin Museum examined).

*Thryophilus rufalbus cumanensis* Chapman, Auk, 14, p. 367, 1897—Cumanacoa, Bermúdez [=Sucre], Venezuela; Hellmayr and Seilern, Arch. Naturg., 78, A, Heft 5, p. 40, 1912—Las Quiguas, San Esteban, and Cumbre Chiquita, Carabobo, Venezuela (crit.); Chapman, Bull. Amer. Mus. N. H., 36, p. 512, 1917—part, Cumanacoa, Venezuela.

*Thryothorus rufalbus* (not of Lafresnaye) Sclater, Proc. Zool. Soc. Lond., 23, p. 143, 1855—part, Santa Marta and "Trinidad"; idem, Cat. Coll. Amer. Bds., p. 20, 1862—parts, spec. a, c, Santa Marta and "Trinidad."

*Thryophilus rufalbus* Salvin and Godman, Ibis, 1880, p. 116—"Minea"—Minca; idem, Biol. Centr.-Amer., Aves, 1, p. 82, 1880—part, Venezuela, "Trinidad"; Sharpe, Cat. Bds. Brit. Mus., 6, p. 212, 1881—part, Venezuela and "Trinidad."

*Thryophilus minlosi* (not of Berlepsch) Bangs, Proc. Biol. Soc. Wash., 12, p. 144, 1898—Santa Marta.

*Thryophilus rufalbus minlosi* Todd and Carriker, Ann. Carnegie Mus., 14, p. 413, 1922—Bonda, La Tigra, Minca, Mamatoco, Don Diego, Fundación, Tucurín, and Tierra Nueva, Santa Marta region (crit.); Darlington, Bull. Mus. Comp. Zool., 71, p. 408, 1931—Rio Frio, Magdalena, Colombia.

*Thryophilus rufalbus castanonotus* (not of Ridgway) Allen, Bull. Amer. Mus. N. H., 13, p. 179, 1900—Cacagualito, Bonda, and Minca, Santa Marta region (crit.); Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 633, 1904—part, northern Colombia (Cacagualito, Bonda, "Massingala Vega," Minca).

*Range*.—Caribbean coast region of northern Venezuela, east to the vicinity of Cumaná, State of Sucre, and Colombia, west to Cartagena.<sup>2</sup>

2: Colombia (Fundación, Santa Marta region, 2).

<sup>1</sup> *Thryothorus rufalbus cumanensis* (Cabanis): Nearest to *T. r. castanonotus*, but with markedly slenderer bill; upper parts conspicuously lighter rufous; breast very nearly as white as the throat; brownish suffusion on the flanks more restricted; auriculars much more narrowly streaked with dusky than in any of the other races. Dimensions not appreciably different from those of *T. r. castanonotus*.

This is the palest among the forms of *T. rufalbus*, its most striking feature being the reduction of the dusky streaking on the auriculars. Birds from Sucre (Cumanacoa) and Carabobo, Venezuela, are on average smaller and duller, more grayish brown on the flanks than a series from Colombia (Cartagena and Santa Marta), but the variation is insignificant.

On once more investigating the much-disputed nomenclature of this race, I came to the conclusion that we cannot well avoid dating the name *cumanensis* from Cabanis. While it is true that Cabanis did not intend to use Lichtenstein's MS. term for the Cartagena bird, since a certain passage, "subtus totus niveus," in Lafresnaye's description led him to assume its identity with *T. rufalbus*, he nevertheless characterized it in the most exact manner, and tells us at the bottom of the page that it is the *Troglodytes cumanensis* Lichtenstein MS. Dr. Stresemann having kindly forwarded the specimen in question, an adult bird collected by Haeblerlin at Cartagena, I was enabled to ascertain its absolute identity with specimens from the Santa Marta region.

*Material examined*.—Colombia: Cartagena (the type), 1; Cacagualito, 2; Fundación, 6; Bonda, 4.—Venezuela: San Esteban, 2; Las Quiguas, 3; Cumbre Chiquita, 4; Cumanacoa, Sucre, 4.

<sup>2</sup> "Trinidad" has been erroneously included in the range of this wren.

**\*Thryothorus rufalbus minlosi (Berlepsch).<sup>1</sup> MINLOS'S WREN.**

*Thryophilus minlosi* Berlepsch, Journ. Orn., 32, p. 280, pl. 1, fig. 3, 1884—Bucaramanga, Santander, Colombia (type in Berlepsch Collection, now in Frankfort Museum, examined).

*Thryothorus rufalbus* (not of Lafresnaye) Sclater, Proc. Zool. Soc. Lond., 23, p. 143, 1855—part, Bogotá; idem, Cat. Coll. Amer. Bds., p. 20, 1862—part, spec. b, Bogotá; Cabanis, Journ. Orn., 8, p. 408, 1860—part, interior of New Granada (crit.).

*Thryophilus rufalbus cumanensis* (not *Troglodytes cumanensis* Cabanis) Chapman, Bull. Amer. Mus. N. H., 36, p. 512, 1917—Villavicencio, Colombia.

**Range.**—Tropical zone of the eastern Andes of Colombia (Bucaramanga; "Bogotá;" Villavicencio, foot of eastern Andes) and adjacent parts of Venezuela, in states of Tachira (Colón) and Zulia (Orope).

4: Venezuela (Colón, Tachira, 3; Orope, Zulia, 1).

**\*Thryothorus thoracicus thoracicus Salvin. STRIPED-BREASTED WREN.**

*Thryothorus thoracicus* Salvin, Proc. Zool. Soc. Lond., 1864, p. 580—Tucurrique, Costa Rica (type now in British Museum); idem, l.c., 1867, p. 134—Santiago, Veragua.

*Thryophilus thoracicus* Lawrence, Ann. Lyc. Nat. Hist. N. Y., 9, p. 93, 1868—Santa Rosa and Tucurrique, Costa Rica; Boucard, Proc. Zool. Soc. Lond.,

<sup>1</sup> *Thryothorus rufalbus minlosi* (Berlepsch): Similar to *T. r. cumanensis*, but much darker rufous above with the pileum more or less dusky so as to form an ill-defined darker cap; auriculars much more heavily streaked with blackish; breast slightly shaded with grayish; flanks decidedly deeper tawny brown.

Birds from Tachira (Colón) and one from southern Zulia (Orope), in the forested region south of Lake Maracaibo, Venezuela, differ markedly by their much darker coloration from the series of the Venezuelan coast region, but seem to be inseparable from Bogotá skins, which, I have hardly any doubt, are entitled to the name *minlosi*. The type of this supposed species, which, thanks to the authorities of the Senckenbergian Museum at Frankfort, is before me, agrees with normal individuals of *T. rufalbus* in all essential characters, notably the regularly black-and-white barred under tail coverts, the concealed white subapical spots on the uropygial feathers, etc. It differs, however, very strikingly by having the dorsal surface light earthy brown tinged with rufescent posteriorly, and the upper tail coverts distinctly, though narrowly, barred with black. The wing coverts and remiges, while having the same pattern, are reddish earthy-brown instead of chestnut, and the tail, though marked in the same way, is much paler, ochraceous-tawny rather than chestnut. Finally, the flanks are grayish brown, very nearly the same tone as in typical *T. r. rufalbus* from Guatemala, and not at all tawny brown. The auriculars are just as heavily streaked with blackish as in Bogotá and Colón specimens, hence much more so than in *cumanensis*. A "Bogotá" skin in the Berlepsch Collection is about halfway intermediate between the type and normally colored individuals, the upper tail coverts being distinctly barred with blackish, and tends to show, as has already been suggested by Mr. Todd, that *T. minlosi* was based on an individual mutant of the east Colombian representative of this wren. Two adults from Villavicencio are wholly similar to Bogotá examples.

**Material examined.**—Colombia: Bucaramanga (the type), 1; "Bogotá," 6; Villavicencio, 2.—Venezuela: Colón, Tachira, 3; Orope, Zulia, 1.

1878, p. 51—San Carlos, Costa Rica; Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 86, pl. 6, figs. 1, 2, 1880—Nicaragua, Costa Rica, and Veragua; Sharpe, Cat. Bds. Brit. Mus., 6, p. 215, 1881—Nicaragua to Veragua; Ridgway, Proc. U. S. Nat. Mus., 6, p. 398, 1883—Los Sábalos, Nicaragua; Zeledón, Anal. Mus. Nac. Costa Rica, 1, p. 105, 1887—Jiménez and Pacuaré, Costa Rica; Cherrie, Proc. U. S. Nat. Mus., 14, p. 520, 1891—Costa Rica (crit.); Richmond, l.c., 16, p. 483, 1893—Rio Escondido, Nicaragua (habits); Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 628, 1904—Nicaragua to Veragua (monog.); Ferry, Field Mus. Nat. Hist., Orn. Ser., 1, p. 273, 1910—Guayábo, Costa Rica; Carriker, Ann. Carnegie Mus., 6, p. 768, 1910—Costa Rica (range, habits, nest, and eggs); Peters, Bull. Mus. Comp. Zool., 71, p. 330, 1931—Almirante, northwestern Panama.

*Thryothorus brunneus* Lawrence, Ann. Lyc. Nat. Hist. N. Y., 8, p. 179, 1865—Greytown, Nicaragua (type in U. S. National Museum;=juv.).

*Range*.—Tropical zone of eastern Nicaragua (Greytown, Los Sábalos, Rio Escondido), Costa Rica (the whole of the Caribbean side and Pacific slope north of the Gulf of Nicoya), and western Panama (Almirante Bay; Santiago de Veraguas; Cascajal, Coclé).

8: Costa Rica (Siquirres, 2; Tuís, 1; Turrialba, 1; Matina, 2; Guayábo, 2).

***Thryothorus thoracicus leucopogon* (Salvadori and Festa).<sup>1</sup>**  
**FESTA'S WREN.**

*Thryophilus leucopogon* Salvadori and Festa, Boll. Mus. Zool. Torino, 14, No. 357, p. 6, 1899—Rio Peripa, Ecuador (type in Turin Museum examined); Hellmayr, Journ. Orn., 51, p. 534, 1903—San Javier, Prov. Esmeraldas, Ecuador (crit.); idem, Proc. Zool. Soc. Lond., 1911, p. 1089—Nóvita, Chocó, Colombia (crit.); Chapman, Bull. Amer. Mus. N. H., 36, p. 513, 1917—San José (Rio Dagua) and Buenavista (Nariño), Colombia, and Tapaliza, eastern Panama; idem, l.c., 55, p. 565, 1926—Rio Peripa (ex Salvadori and Festa).

<sup>1</sup> *Thryothorus thoracicus leucopogon* (Salvadori and Festa): Similar to *T. t. thoracicus*, in markings on sides of head, wings, and tail as well as in form but immediately distinguished by having only the throat-feathers white laterally edged with black and the remainder of the ventral surface deep ochraceous or tawny-brown, brighter and more rufescent on abdomen and under tail coverts, the latter immaculate (instead of regularly barred with black and buffy as in the typical race). Besides, pileum and back are of a duller brown, less shaded with rufescent; wings and tail, on the contrary, more decidedly tawny; the inner margin to the remiges buffy instead of white; the dimensions slightly smaller. Wing, 57–58, (female) 54–55; tail, 37–39, (female) 33; bill,  $16\frac{1}{2}$ – $17\frac{1}{2}$ .

This strongly marked form is evidently conspecific with *T. thoracicus*, whose juvenile plumage bears a striking resemblance to Festa's Wren. A single adult bird from Colombia (Nóvita) is perfectly identical with an Ecuadorian series.

*Material examined*.—Ecuador: Rio Peripa (the type), 1; San Javier (alt. 60 ft.), Prov. Esmeraldas, 4; Lita (alt. 3,000 ft.), Prov. Imbabura, 1.—Colombia: Nóvita, Rio Tamaná, Chocó, 1.

*Range*.—Tropical zone of the Pacific coast from eastern Panama (Tapaliza, Darien) to western Ecuador (San Javier and Lita, Prov. Esmeraldas; Rio Peripa, Prov. Pichincha).<sup>1</sup>

**\*Thryothorus nigricapillus nigricapillus** Sclater. BLACK-CAPPED WREN.

*Thryothorus nigricapillus* Sclater, Proc. Zool. Soc. Lond., 28, p. 84, 1860—Nanegal, alt. 4,000 ft., Ecuador (type now in British Museum); idem, l.c., 28, p. 291, 1860—Esmeraldas; idem, Cat. Coll. Amer. Bds., p. 21, 1862—Nanegal and Esmeraldas.

*Thryophilus nigricapillus* Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 89, 1880—part, Ecuador; Sharpe, Cat. Bds. Brit. Mus., 6, p. 217, 1881—part, western Ecuador; Berlepsch and Taczanowski, Proc. Zool. Soc. Lond., 1883, p. 540—Chimbo; Allen, Bull. Amer. Mus. N. H., 2, p. 69, 1889—"Quito"; Hartert, Nov. Zool., 5, p. 479, 1898—Cachabí and Chimbo, Ecuador; Salvadori and Festa, Boll. Mus. Zool. Torino, 14, No. 357, p. 6, 1899—Rio Peripa; Goodfellow, Ibis, 1901, p. 313—San Nicolas and Intag; Lönnberg and Rendahl, Ark. Zool., 14, No. 25, p. 76, 1922—Nanegal.

*Thryophilus nigricapillus nigricapillus* Chapman, Bull. Amer. Mus. N. H., 55, p. 565, 1926—Esmeraldas, Manaví, Mindo, Naranjo, Bucay, junction of Chanchan and Chiguancay rivers, Chimbo, and La Chonta (crit.).

*Range*.—Tropical zone of western Ecuador, from Esmeraldas to the Rio Santa Rosa, near the Peruvian boundary.<sup>2</sup>

3: Ecuador (Carondelet, Prov. Esmeraldas, 1; Puente de Chimbo, Prov. Guayas, 2).

**Thryothorus nigricapillus connectens** (Chapman).<sup>3</sup> INTERMEDIATE BLACK-CAPPED WREN.

<sup>1</sup> A nearly allied form has recently been described by Griscom (Bull. Mus. Comp. Zool., 72, p. 359, 1932) as *Thryophilus leucopogon griseus* from Permé, Caribbean coast of extreme eastern Panama. It is stated to be distinguishable by paler and grayer coloration, the upper parts being grayish brown rather than sepia.

<sup>2</sup> Certain specimens from Esmeraldas with faint suggestions of bars or freckles on the throat diverge in the direction of *T. n. connectens*.

*Material examined*.—Prov. Esmeraldas: Ventana, 2; Rio Sapayo, 1; Pambilár, 1; San Javier, 4; Carondelet, 1.—Prov. Imbabura: Paramba (alt. 3,500 ft.), 5.—Prov. Pichincha: Mindo, 3.—Prov. Guayas: Chimbo, 4.

<sup>3</sup> *Thryothorus nigricapillus connectens* (Chapman): Agreeing in densely barred posterior under parts with *T. n. schottii*, but breast less marked with black and throat immaculate white; similar in coloration of throat to *T. n. nigricapillus*, but rest of under parts more heavily barred.

This race, by combining the heavily barred (posterior) under parts of *T. n. schottii* with the plain white throat of *T. n. nigricapillus*, forms a connecting link between the north Colombian and Ecuadorian birds.

*Material examined*.—Colombia: Cocal, 2; Barbacoas, 2.

*Thryophilus nigricapillus connectens* Chapman, Bull. Amer. Mus. N. H., 31, p. 157, 1912—Cocal (alt. 5,000 ft.), Andes west of Popayan, Cauca, Colombia (type in the American Museum of Natural History, New York); idem, l.c., 36, p. 514, 1917—Cocal and Barbacoas, west slope of western Andes, Colombia.

*Range*.—Tropical zone of southwestern Colombia, in depts. of Cauca (Cocal, west of Popayan) and Nariño (Barbacoas).

**\*Thryothorus nigricapillus schottii (Baird).<sup>1</sup> SCHOTT'S WREN.**

*Thryophilus schottii* Baird, Rev. Amer. Bds., 1, p. 133, 1864—Rio Truando, northwestern Colombia (type in U. S. National Museum).

*Thryothorus nigricapillus* (not of Sclater) Cassin, Proc. Acad. Nat. Sci. Phila., 1860, p. 193—Rio Truando, Colombia.

*Thryophilus nigricapillus* Sclater and Salvin, Proc. Zool. Soc. Lond., 1879, p. 493—Remedios, Rio Ité, Antioquia; Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 89, 1880—part, Rio Truando, Remedios and "Santa Elena" (errore), Antioquia (nest descr.); Sharpe, Cat. Bds. Brit. Mus., 6, p. 217, 1881—part, Truando and "Santa Elena."

*Thryophilus nigricapillus schottii* Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 626, 1904—Rio Truando and Antioquia (monog.); Hellmayr, Proc. Zool. Soc. Lond., 1911, p. 1089—Rio Condoto and Sipi, Chocó, Colombia (crit.); Chapman, Bull. Amer. Mus. N. H., 36, p. 513, 1917—Alto Bonito, Dabeiba, Bagado, Juntas de Tamaná, Buenaventura, San José, and Los Cisneros, Colombia; Bangs and Barbour, Bull. Mus. Comp. Zool., 65, p. 222, 1922—Jesusito, Darien; Griscom, l.c., 69, p. 182, 1929—El Tigre, Rio Cupe, and Cana, Darien.

*Range*.—Tropical zone of eastern Panama (Tapaliza, Jesusito, El Tigre, and Cana, Darien)<sup>2</sup> and western Colombia south to the Rio San Juan, extending eastward into Antioquia (Remedios).

2: Colombia (Alto Bonito, Rio Sucio, 1; San José, Chocó, 1).

**Thryothorus nigricapillus castaneus Lawrence.<sup>3</sup> BAY WREN.**

<sup>1</sup> *Thryothorus nigricapillus schottii* (Baird): Differs from the typical race by having the under parts more closely as well as more regularly barred with black, this divergency being particularly noticeable along the median portion. Besides, the throat is distinctly, though narrowly, barred or at least edged and freckled with blackish.

*Material examined*.—Darien (Tapaliza, Jesusito), 3.—Colombia: Alto Bonito, 1; Condoto, Rio Condoto, 5; Sipi, Rio Sipi, 1; San José, 1.

<sup>2</sup> An additional race, *T. n. reditus*, from the Caribbean slope of extreme eastern Panama (Permé and Obaldia) has lately been separated by Griscom (Bull. Mus. Comp. Zool., 72, p. 358, 1932).

<sup>3</sup> *Thryothorus nigricapillus castaneus* Lawrence, in coloration of upper parts, including wings and tail, duplicates the black-capped South American races, but underneath there are mere traces of irregular dusky bars, and the ground color, posterior to the wholly or nearly immaculate white throat, is tawny, this color, in *T. n. schottii*, being confined to the flanks and under tail coverts. As a rule, the pileum is uniform black as in *schottii* and *nigricapillus*; one specimen from Lion Hill, however, has dull chestnut-rufous apical margins, thus marking a step towards the rufous-crowned form *semibadius* of extreme western Panama.

*Material examined*.—Panama: Lion Hill, 4; Santiago de Veragua, 1.



*Thryothorus castaneus* Lawrence, Ann. Lyc. Nat. Hist. N. Y., 7, p. 321, 1861—Lion Hill, Panama Railroad (type now in the American Museum of Natural History, New York); Sclater and Salvin, Proc. Zool. Soc. Lond., 1864, p. 346—Lion Hill, Panama (crit.); Salvin, l.c., 1867, p. 134—Santiago de Veragua, Panama.

*Thryothorus nigricapillus* (not of Sclater) Lawrence, Ann. Lyc. Nat. Hist. N. Y., 7, p. 293, 1861—Panama Railroad.

*Thryophilus castaneus* Baird, Rev. Amer. Bds., 1, p. 133, 1864—Panama Railroad (descr.); Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 88, 1880—part, Santiago de Veraguas and Lion Hill, Panama; Sharpe, Cat. Bds. Brit. Mus., 6, p. 216, 1881—Panama; Bangs, Proc. New Engl. Zool. Cl., 2, p. 27, 1900—Loma del Leon, Panama.

*Thryophilus castaneus castaneus* Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 625, 1904—Isthmus of Panama, from line of Panama Railway north to ["Chiriquí" (errore) and] Veragua (Santiago) (monog.); Stone, Proc. Acad. Nat. Sci. Phila., 70, p. 271, 1918—Gatun, Panama Canal Zone.

**Range.**—Western Panama, from the Canal Zone (Panama City, Lion Hill, Gatun, Colón) west to Veragua (Santiago, Rio Calovévora).

**\**Thryothorus nigricapillus costaricensis* (Sharpe).<sup>1</sup> COSTA RICAN BAY WREN.**

*Thryophilus costaricensis* Sharpe, Cat. Bds. Brit. Mus., 6, p. 217, 1881—Costa Rica (type in British Museum); Zeledón, Anal. Mus. Nac. Costa Rica, 1, p. 105, 1887—Jiménez and Rio Sucio, Costa Rica; Cherrie, Proc. U. S. Nat. Mus., 14, p. 519, 1891—Jiménez, Costa Rica, and Los Sábalos, Nicaragua (crit.); Richmond, l.c., 16, p. 482, 1893—Greytown and Rio Escondido, Nicaragua, and Rio Frio, Costa Rica (habits); Salvin, Bull. Brit. Orn. Cl., 1, p. XXXII, 1893—Nicaragua; Lantz, Trans. Kansas Acad. Sci., 16, p. 224, 1899—San Juan Valley, Costa Rica.

*Thryophilus castaneus* (not *Thryothorus castaneus* Lawrence, 1861) Lawrence, Ann. Lyc. Nat. Hist. N. Y., 9, p. 93, 1868—Pacuaré and Angostura, Costa Rica; Frantzius, Journ. Orn., 17, p. 291, 1869—Costa Rica; Boucard, Proc. Zool. Soc. Lond., 1878, p. 51—San Carlos, Costa Rica; Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 88, 1880—part, Pacuaré, Angostura, and Tucurriquí, Costa Rica; Ridgway, Proc. U. S. Nat. Mus., 6, p. 398, 1883—Los Sábalos, Nicaragua.

*Thryophilus castaneus costaricensis* Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 625, 1904—eastern Costa Rica and Nicaragua (monog.); Carriker, Ann. Carnegie Mus., 6, p. 760, 1910—Bonilla, Jiménez, Reventazón, Guayábo, Turrialba, Carrillo, La Vijagua, Guápiles, El Hogar, Guácimo, and Cuábre, eastern Costa Rica (range, habits, nest, and eggs); Rendahl, Ark. Zool., 12, No. 8, p. 36, 1919—Siquirres, Costa Rica; Kennard and

<sup>1</sup> *Thryothorus nigricapillus costaricensis* (Sharpe) carries the differentiation suggested in *T. n. castaneus* to the extreme, the under parts being much richer tawny-chestnut, more abruptly contrasted with the white of the throat, and the blackish bars being restricted to flanks and under tail coverts. Coloration and markings of wing and tail are very much the same as in the South American races, which it also resembles in the uniform black pileum.

Peters, Proc. Bost. Soc. N. H., 38, p. 459, 1928—Almirante, Panama;  
 Peters, Bull. Mus. Comp. Zool., 71, p. 331, 1931—Chiriquí Lagoon region,  
 Panama (crit.).

*Range*.—Eastern Nicaragua (Greytown, Rio Escondido, Los Sábalos), eastern Costa Rica, and adjacent section of extreme north-eastern Panama (Almirante Bay and Chiriquí Lagoon region).

6: Costa Rica (El Hogar, 2; Matina, 2; Limón, 2).

**\*Thryothorus nigricapillus semibadius** Salvin.<sup>1</sup> SALVIN'S WREN.

*Thryothorus semibadius* Salvin, Proc. Zool. Soc. Lond., 1870, p. 181—Bugaba, Chiriquí (type now in British Museum).

*Thryophilus semibadius* Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 88, pl. 6, fig. 3, 1880—Bugaba and Bibalá, Chiriquí; Sharpe, Cat. Bds. Brit. Mus., 6, p. 216, 1881—Bibalá, Chiriquí; Zeledón, Anal. Mus. Nac. Costa Rica, 1, p. 105, 1887—Pózo Azul de Pirrís, Costa Rica; Cherrie, Proc. U. S. Nat. Mus., 14, p. 520, 1891—Pózo Azul, Costa Rica (crit.); idem, Anal. Inst. Fis.-Geog. Mus. Nac. Costa Rica, 4, p. 135, 1893—Lagarto, Palmár, Buenos Aires, and Cabagre, southwestern Costa Rica; Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 627, 1904—"Veragua"—Chiriquí (Bugaba, Bibalá) and southwestern Costa Rica (monog.); Bangs, Auk, 24, p. 305, 1907—Boruca, Paso Real, Pózo del Rio Grande, and Lagarto, southwestern Costa Rica; Carriker, Ann. Carnegie Mus., 6, p. 759, 1910—Pózo Azul de Pirrís, Pózo Pital, El General de Térraba, Boruca, and Buenos Aires, southwestern Costa Rica (habits).

*Range*.—Pacific lowlands of southwestern Costa Rica and extreme western Panama (Bugaba and Bibalá, Chiriquí).

8: Panama (Chiriquí, 1); Costa Rica (Palmár, 1; Cabagre, 1; Buenos Aires, 1; El Pózo, Rio Térraba, 1; "Volcan" de Oso, alt. 500 ft., 3).

**\*Thryothorus pleurostictus pleurostictus** Sclater. SCLATER'S BANDED WREN.

*Thryothorus pleurostictus* Sclater, Ibis, 2, p. 30, 1860—Vera Paz, Guatemala (type now in British Museum); idem, Cat. Coll. Amer. Bds., p. 21, pl. 4, 1862—Guatemala; idem, Proc. Zool. Soc. Lond., 1870, p. 550—part, southern Mexico and Guatemala; Lawrence, Bull. U. S. Nat. Mus., 4, p. 13, 1876—Tehuantepec (Santa Efigenia), Guichicovi, and Tapana, southern Oaxaca (habits, nest, and eggs).

*Thryophilus pleurostictus* Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 86, 1880—part, Mexico (San Juan "del Rio," Santa Efigenia, Guichicovi, and Tapana, Oaxaca) and Guatemala; Sharpe, Cat. Bds. Brit. Mus., 6,

<sup>1</sup> Despite several pronounced characters, viz. rufous (not black) pileum, white-barred upper wing coverts, reduction and paleness of the light tail bands, etc., this wren is clearly a geographical representative of the black-capped group.

In addition to specimens in Field Museum I have examined six more from southwestern Costa Rica (Palmár, Buenos Aires) and two from Chiriquí.

p. 213, 1881—part, southwestern Mexico (Tehuantepec); Zeledón, Anal. Mus. Nac. Costa Rica, 1, p. 105, 1887—Mexico; Dearborn, Field Mus. Nat. Hist., Orn. Ser., 1, p. 134, 1907—Gualan, Guatemala.

*Thryophilus pleurostictus pleurostictus* Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 629, 1904—part, "southeastern" Mexico, in states of Guerrero, Oaxaca, and Chiapas, and Guatemala (monog.); Bangs and Peters, Bull. Mus. Comp. Zool., 68, p. 399, 1928—Chivelá, Lagunas, and Tapanatepec, Oaxaca.

(?) *Thryothorus nisorius* Sclater, Proc. Zool. Soc. Lond., 1869, p. 592, pl. 45—"Real Arriba," Mexico (type in Berlin Museum).

(?) *Thryophilus nisorius* Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 87, 1880—"Real Ariba," Mexico; Sharpe, Cat. Bds. Brit. Mus., 6, p. 214, 1881—"Real Ariba," Mexico.

(?) *Thryophilus pleurostictus nisorius* Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 631, 1904—southern Mexico (Real Arriba, Puebla (?), and Puente de Ixtla, Morelos).

**Range.**—Southwestern Mexico, in states of Morelos (Puente de Ixtla), Guerrero (Apipiluluca, Rio Balsas), Oaxaca (San Juan, Santa Efigenia, Chivelá, Tapanatepec, Guichicovi, Tapaná, Chimalapa), and Chiapas; and Guatemala (Vera Paz; Gualan, Zacapa).<sup>1</sup>

3: Guatemala (Gualan, Zacapa, 1); Mexico (Apipiluluca, Guerrero, 1; unspecified, 1).

**\**Thryothorus pleurostictus ravus* (Ridgway).<sup>2</sup> NICARAGUAN BANDED WREN.**

*Thryophilus pleurostictus ravus* Ridgway, Proc. Biol. Soc. Wash., 16, p. 167, 1903—San Juan del Sur, Nicaragua (type in U. S. National Museum); idem, Bull. U. S. Nat. Mus., 50, Part 3, p. 631, 1904—western Nicaragua and Costa Rica (monog.); Bangs, Auk, 24, p. 305, 1907—Barránca de Puntarenas, Costa Rica; Carriker, Ann. Carnegie Mus., 6, p. 757, 1910—northwestern Costa Rica, south to the Rio Grande de Tárcoles (habits).

*Thryophilus pleurostictus* (not *Thryothorus pleurostictus* Sclater) Lawrence, Ann. Lyc. Nat. Hist. N. Y., 9, p. 92, 1868—Gulf of Nicoya, Costa Rica;

<sup>1</sup> I question the possibility of splitting the Mexican birds into two races. In *T. p. ravus* the amount of barring on the under surface varies individually to such an extent as to cast serious doubts on the taxonomic value of this character. Moreover, it is difficult to see what range could be assigned to the supposed race *T. p. nisorius*. This name might, however, come into use for the Mexican birds as a whole, if they should prove to be different from those of Guatemala. The only available specimen from the latter country, an adult female, is smaller (wing, 58; tail, 45) and has less barring underneath.

<sup>2</sup> Rather an unsatisfactory race of unusual variability. In the same locality specimens with only a few dusky bars on the sides and under tail coverts occur along with others in which the whole ventral surface (posterior to the throat) is marked with broad, regular blackish bands. This is particularly well illustrated by a series from Bebedero, Costa Rica, in the Vienna Museum. I can hardly believe in the distinctness of the Salvador race. The color characters fall well within the individual variation of the present form, and the slightly shorter bill seems too insignificant to justify its retention.

Frantzius, Journ. Orn., 17, p. 291, 1869—Costa Rica; Boucard, Proc. Zool. Soc. Lond., 1878, p. 51—Puntarenas, Costa Rica; Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 86, 1880—part, Salvador ("Conchagua"=La Union), Nicaragua (Puerto Corinto, San Juan del Sur), and Costa Rica (Tempate, Bebedéro); Sharpe, Cat. Bds. Brit. Mus., 6, p. 213, 1881—part, Nicaragua and Costa Rica; Ridgway, Proc. U. S. Nat. Mus., 6, pp. 373, 381, 391, 1883—San Juan del Sur, Sucuyá, and Island of Ometépe, Lake Nicaragua, Nicaragua; Underwood, Ibis, 1896, p. 433—Miravalles, Costa Rica; Lantz, Trans. Kansas Acad. Sci., 16, p. 224, 1899—Granada, Nicaragua.

- (?) *Thryophilus pleurostictus lateralis* Dickey and van Rossem, Proc. Biol. Soc. Wash., 40, p. 3, 1927—Lake Olomega, El Salvador (type in coll. of D. R. Dickey, Pasadena, California).

*Range*.—Pacific lowlands of Central America, from the Gulf of Fonseca (La Union, Salvador, Lake Olomega) through Nicaragua to Costa Rica, south to the Rio Grande de Tárcoles, including the peninsula of Nicoya.

7: Nicaragua (San Gerónimo, Chinandega, 4); Costa Rica (Las Cañas, 2; Esparta, 1).

**\**Thryothorus atrogularis atrogularis* Salvin.<sup>1</sup> BLACK-THROATED WREN.**

*Thryothorus atrogularis* Salvin, Proc. Zool. Soc. Lond., 1864, p. 580—Tucurriquí, Costa Rica (type now in British Museum); Zeledón, Anal. Mus. Nac. Costa Rica, 1, p. 105, 1887—Pacuaré and Jiménez, Costa Rica; Richmond, Proc. U. S. Nat. Mus., 16, p. 483, 1893—Rio Escondido, Nicaragua.

*Thryothorus atrigularis* Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 91, pl. 6, fig. 4, 1880—Costa Rica (Tucurriquí) and Nicaragua (Greytown); Sharpe, Cat. Bds. Brit. Mus., 6, p. 231, 1881—same localities.

*Pheugopedius atrogularis* Lawrence, Ann. Lyc. Nat. Hist. N. Y., 8, p. 180, 1865—Greytown, Nicaragua; idem, l.c., 9, p. 92, 1868—Tucurriquí, Costa Rica; Frantzius, Journ. Orn., 17, p. 291, 1869—Costa Rica; Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 530, 1904—Costa Rica (Pacuaré, Jiménez, Tucurriquí) and Nicaragua (Greytown, Rio Escondido); Carriker, Ann. Carnegie Mus., 6, p. 769, 1910—Jiménez, La Vijagua, Guácimo, Guápiles, Rio Sicsola, and El Hogar, Costa Rica (habits); Rendahl, Ark. Zool., 12, No. 8, p. 36, 1919—San Juan del Norte, Nicaragua; Kennard and Peters, Proc. Bost. Soc. N. H., 38, p. 459, 1928—Almirante, Panama; Peters, Bull. Mus. Comp. Zool., 71, p. 331, 1931—Almirante and Western River, Panama.

<sup>1</sup> This wren, in spite of its peculiar coloration recalling certain Formicariidae of the genera *Myrmeciza* and *Myrmelastes*, seems to be closely related to *T. fasciatoventris melanogaster* Sharpe, whose place it apparently takes on the Caribbean side of Costa Rica.

*Range*.—Caribbean lowlands (up to 4,000 ft.) of Nicaragua (Greytown; Rio Escondido; San Juan del Norte), Costa Rica, and extreme western Panama (Almirante Bay region).

3: Costa Rica (Matina, 1; Hacienda La Iberia, alt. 600 ft., foot of Volcan de Turrialba, 1; Santa Cruz de Turrialba, alt. 4,000 ft., 1).

***Thryothorus atrogularis spadix* (Bangs).<sup>1</sup> SOUTHERN BLACK-THROATED WREN.**

*Phlegopedius spadix* Bangs, Proc. Biol. Soc. Wash., 23, p. 74, 1910—Naranjito, Rio Dagua, Colombia (type now in Museum of Comparative Zoology, Cambridge, Mass.; cf. Bangs, Bull. Mus. Comp. Zool., 70, p. 316, 1930); Chapman, Bull. Amer. Mus. N. H., 36, p. 514, 1917—Gallera, Colombia, and Tacarcuna, eastern Panama.

*Phlegopedius spadix xerampelinus* Griscom, Bull. Mus. Comp. Zool., 69, p. 182, 1929—Cana, eastern Panama (type in Museum of Comparative Zoology, Cambridge, Mass.); Bangs, l.c., 70, p. 316, 1930—Cana.

*Range*.—Lower Subtropical zone of the Pacific slope of Colombia (Gallera, west of Popayan, Cauca; Naranjito, Rio Dagua) north to eastern Panama (Tacarcuna and Cana, Darien).

**\**Thryothorus fasciato-ventris fasciato-ventris* (Lafresnaye). BAND-BELLIED WREN.**

<sup>1</sup>*Thryothorus atrogularis spadix* (Bangs) is immediately distinguished from the typical form by having the tail regularly barred with rufescent (cinnamon to Mikado brown); dark mouse gray to sooty pileum; somewhat brighter, rich chestnut, instead of vandyke brown, back and outer margin to the remiges; by the black color below being restricted to the throat, while the foreneck and chest are rich deep tawny; finally by much paler posterior under parts, which, instead of uniform mummy brown, are grayish buffy brown (with a number of blackish cross bars) deepening on the flanks to rufescent brown (between Raw umber and Prout's brown). Wing, 63–65, (female) 60–62; tail, 56–59, (female) 55; bill, 17–18½.

This form, while strongly marked, is obviously a geographical representative of the Black-throated Wren of Costa Rica. In typical *T. a. atrogularis* the black gorget extends over the foreneck down to the middle of the chest; the upper part of the head is rufous brown, somewhat duller than the back; the tail bands are at best suggested by pale brownish marginal spots or bars on the outer webs of the rectrices, etc.

I am unable to maintain *xerampelinus* as distinct. All of the alleged differences break down on comparison of ten Darien examples with an adult female from Gallera, west of Popayan. The latter has the pileum darker, sooty blackish rather than deep mouse gray to dark mouse gray, but the type from Naranjito does not materially differ in this respect from adult Panama specimens. Like so many other species of the Pacific fauna, this strikingly well-defined form seems to range, without undergoing any racial variation, from eastern Panama to Colombia, and may yet appear in the adjacent section of Ecuador.

*Material examined*.—Colombia: Naranjito (alt. 3,900 ft.), Rio Dagua, 1 (the type); Gallera (alt. 5,700 ft.), west of Popayan, Cauca, 1.—Panama (Darien): Cana, 5; Tacarcuna, 5.

*Thryothorus fasciato-ventris* Lafresnaye, Rev. Zool., 8, p. 337, 1845—"ad Bogotám" (type now in Museum of Comparative Zoology, Cambridge, Mass.; cf. Bangs, Bull. Mus. Comp. Zool., 70, p. 316, 1930).

*Thryothorus fasciato-ventris* Sclater, Proc. Zool. Soc. Lond., 23, p. 143, 1855—Bogotá.

*Thryothorus fasciiventris* Sclater and Salvin, Proc. Zool. Soc. Lond., 1879, p. 493—Remedios and Neché, Antioquia; Sharpe, Cat. Bds. Brit. Mus., 6, p. 229, pl. 14, fig. 1, 1881—Remedios and Bogotá; Cherrie (ex Ridgway MS.), Proc. U. S. Nat. Mus., 14, p. 522, 1891—Bogotá and "Santa Marta" (crit.).

*Phlegopediurus fasciato-ventris* Baird, Rev. Amer. Bds., 1, p. 134, 1864—part, "Santa Marta."

*Phlegopediurus fasciato-ventris fasciato-ventris* Chapman, Bull. Amer. Mus. N. H., 36, p. 515, 1917—Puerto Valdivia, Malena, Algodonal, and Honda, Magdalena Valley, and "Anolaima," Colombia (crit.); Todd and Carriker, Ann. Carnegie Mus., 14, p. 420, 1922—Fundación and Tucurínca, Santa Marta region (crit., habits); Darlington, Bull. Mus. Comp. Zool., 71, p. 408, 1931—Rio Frio, Magdalena, Colombia (habits).

*Phlegopediurus fasciato-ventris cognatus* Todd, Proc. Biol. Soc. Wash., 28, p. 80, 1915—Fundación, Santa Marta region, Colombia (type in Carnegie Museum examined).

*Phlegopediurus fasciato-ventris albigularis* (not *Cyphorinus albigularis* Sclater) Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 531, 1904—part, "Santa Marta."

**Range.**—Tropical zone of eastern Colombia in the lower Cauca and Magdalena valleys, extending in the east to the western base of the Santa Marta Mountains (Rio Frio; Fundación; Tucurínca).<sup>1</sup>

3: Colombia ("Bogotá," 1; Puerto Zapote, lower Magdalena, Dept. Bolívar, 1; "Medellín,"<sup>2</sup> 1).

### ***Thryothorus fasciato-ventris albigularis* Sclater. PANAMA BLACK-BELLIED WREN.**

*Cyphorinus albigularis* Sclater, Proc. Zool. Soc. Lond., 23, p. 76, pl. 88, June, 1855—Isthmus of Panama (type in Derby Collection, now in Liverpool Museum); idem, l.c., 25, p. 4, 1857—Panama.

<sup>1</sup> As correctly pointed out by Mr. Todd, this form is subject to much individual variation in the amount of barring on the under surface as well as on the rectrices. The Colombian race may, however, be separated from *T. f. albigularis* by somewhat brighter rufescent upper parts and white lower portion of the auriculars, though single specimens are not always distinguishable.

**Material examined.**—Colombia: "Bogotá," 7; Malena, 2; Puerto Zapote, 1; Fundación, 2; "Medellín," 1.

<sup>2</sup> The specimen labeled "Medellín, Costa Rica" is one of T. K. Salmon's Antioquia skins; witness the round, numbered original label. The locality "Medellín" on the Field Museum label is doubtless a mistake, Salmon having obtained this wren only at Remedios and on the Rio Neché. Ridgway was misled by the present example to include "Medellín" among the Costa Rican localities of *T. f. melanogaster*.

*Thryothorus albigularis* Sharpe, Cat. Bds. Brit. Mus., 6, p. 230, 1881—Paraiso Station, Panama Railroad; Salvadori and Festa, Boll. Mus. Zool. Torino, 14, No. 339, p. 2, 1899—Rio Lara, Darien.

*Thryothorus fasciatoventris albigularis* Bangs, Proc. New Engl. Zool. Cl., 2, p. 27, 1900—Loma del Leon, Panama Railroad.

*Pheugopedius fasciato-ventris albigularis* Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 531, 1904—part, Isthmus of Panama (monog.); Thayer and Bangs, Bull. Mus. Comp. Zool., 46, p. 219, 1906—savanna of Panama; Stone, Proc. Acad. Nat. Sci. Phila., 70, p. 272, 1918—Gatun, Panama; Bangs and Barbour, Bull. Mus. Comp. Zool., 65, p. 221, 1922—Jesusito, Darien; Griscom, l.c., 69, p. 182, 1929—Cana, Darien.

*Pheugopedius fasciato-ventris* (not *Thryothorus fasciato-ventris* Lafresnaye) Baird, Rev. Amer. Bds., 1, p. 134, 1864—part, Panama Railroad (crit.).

*Cyphorinus fasciatoventris* Lawrence, Ann. Lyc. Nat. Hist. N. Y., 7, p. 320, 1861—Lion Hill, Panama.

*Thryothorus fasciato-ventris* Sclater and Salvin, Proc. Zool. Soc. Lond., 1864, p. 346—Panama Railroad (crit.).

*Thryothorus fasciati-ventris* Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 90, 1880—part, Lion Hill, Panama; Zeledón, Anal. Mus. Nac. Costa Rica, 1, p. 105, 1887—part, Panama.

**Range.**—Eastern Panama, from the Canal Zone (Colón, Lion Hill, Paraiso Station, Panama City) east to Darien (Cana, Jesusito, Rio Lara).<sup>1</sup>

**\**Thryothorus fasciato-ventris melanogaster* Sharpe. BLACK-BELLIED WREN.**

*Thryothorus melanogaster* Sharpe, Cat. Bds. Brit. Mus., 6, p. 230, pl. 14, fig. 2, 1881—Bugaba, Chiriquí (type in British Museum); Cherrie, Proc. U. S. Nat. Mus., 14, pp. 521, 523, 1891—Pózo Azul de Pirris and San Mateo, Costa Rica (crit.); idem, Anal. Inst. Fis.-Geog. Mus. Nac. Costa Rica, 4, p. 135, 1893—Palmár, Lagarto, and Buenos Aires, Costa Rica.

*Thryothorus fasciati-ventris melanogaster* Bangs, Auk, 18, p. 368, 1901—Divala, Chiriquí (crit.).

*Thryothorus fasciatoventris melanogaster* Bangs, Proc. New Engl. Zool. Cl., 2, p. 53, 1902—Bugaba, Chiriquí.

*Pheugopedius fasciatoventris melanogaster* Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 532, 1904—"Veragua," Chiriquí, and Costa Rica (monog.); Bangs, Auk, 24, p. 304, 1907—Boruca, Pózo del Rio Grande, and Barránca, Costa Rica; Carriker, Ann. Carnegie Mus., 6, p. 768, 1910—Pózo Azul de Pirris, El Pózo de Rio Térraba, and Boruca, southwestern Costa Rica (habits).

*Thryothorus fasciatoventris* (not of Lafresnaye) Salvin, Proc. Zool. Soc. Lond., 1870, p. 180—Bugaba, Chiriquí.

*Thryothorus fasciati-ventris* Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 90, 1880—part, San Mateo (Costa Rica), Bugaba and Bibalá (Chiriquí);

<sup>1</sup> Six specimens examined.

Zeledón, Anal. Mus. Nac. Costa Rica, 1, p. 105, 1887—part, Pózo Azú de Pirris.

*Pheugopedius fasciiventris* Lawrence, Ann. Lyc. Nat. Hist. N. Y., 9, p. 92, 1868—San Mateo, Costa Rica; Frantzius, Journ. Orn., 17, p. 291, 1869—Costa Rica.

*Range*.—Pacific lowlands of extreme western Panama (Divala, Bugaba, and Bibalá, Chiriquí) and southwestern Costa Rica, north to the Rio Grande de Tárcoles.<sup>1</sup>

6: Costa Rica (Palmár, 1; Lagarto, 1; Buenos Aires, 1; El Pózo de Rio Térraba, 3).

**\*Thryothorus genibarbis genibarbis Swainson. MOUSTACHED WREN.**

*Thryothorus genibarbis* Swainson, Anim. in Menag., p. 322, Dec. 31, 1837—Brazil=Bahia<sup>2</sup> (type in coll. W. Swainson, now in University Museum, Cambridge, Engl.); Sharpe, Cat. Bds. Brit. Mus., 6, p. 233, 1881—part, Brazil; Goeldi, Ibis, 1903, p. 499—Rio Capim, Pará; Hellmayr, Nov. Zool., 12, p. 271, 1905—Igarapé-Assú, Pará; idem, l.c., 13, p. 355, 1906—Santo Antonio do Prata, Pará; Reiser, Denks. Math.-Naturwiss. Kl. Akad. Wiss. Wien, 76, p. 100, 1910—Miritiba, Maranhão; Snethlage, Bol. Mus. Goeldi, 8, p. 490, 1914—Pará, Providencia, Benevides, Santa Isabel, Quati-purú, Santo Antonio do Prata, Rio Capim (Aproaga), Rio Tocantins (Baião, Bocca do Manapiri), and Rio Tapajóz (Boim); idem, Bol. Mus. Nac. Rio de Janeiro, 2, No. 6, p. 59, 1926—Anil, São Bento, and Tury-assú, Maranhão.

*Thryothorus genibarbis genibarbis* Hellmayr, Nov. Zool., 15, p. 18, 1908—Bahia to Pará, west to the lower Rio Madeira (Borba); idem, l.c., 17, p. 263, 1910—Rio Madeira (Santa Isabel, Calama, and Borba); idem, Abhandl. Bayr. Akad. Wiss., Math.-Phys. Kl., 26, No. 2, pp. 5, 86, 1912—Ipitinga, Rio Acará, and Pará localities; Beebe, Zoologica (N. Y.), 2, p. 95, 1916—Pará; Stone, Proc. Acad. Nat. Sci. Phila., 80, p. 172, 1928—Pará.

*Pheugopedius genibarbis* Cabanis, Mus. Hein., 1, p. 79, 1850—Brazil; Burmeister, Syst. Uebers. Th. Bras., 3, p. 133, 1856—from Bahia to Pará.

*Thriothonus genibarbis* Ihering and Ihering, Cat. Faun. Braz., 1, p. 323, 1907—Bahia and Espirito Santo (Santa Leopoldina).

*Sphenura coraya* (not *Turdus coraya* Gmelin) Lichtenstein, Verz. Doubl. Berliner Mus., p. 42, 1823—Brazil (diag.).

*Myothera coraya* Spix, Av. Bras., 1, p. 73, pl. 73, fig. 2, 1924—Bahia (cf. Hellmayr, Abhandl. 2. Kl. Bayr. Akad. Wiss., 22, No. 3, p. 624, 1906).

*Thryothorus coraya* Wied, Beitr. Naturg. Bras., 3, (2), p. 754, 1831—eastern Brazil (cf. Allen, Bull. Amer. Mus. N. H., 2, p. 214, 1889).

*Thryothorus melanos* (not of Vieillot) Sclater, Cat. Coll. Amer. Bds., p. 21, 1862—Brazil; Pelzeln, Orn. Bras., 1, p. 48, 1868—part, Borba, Rio Madeira.

<sup>1</sup> Costa Rican birds agree with four from Chiriquí.

<sup>2</sup> Cf. Hellmayr, Nov. Zool., 12, p. 271, 1905.



*Pheugopedius genibarbis genibarbis* Hellmayr, Field Mus. Nat. Hist., Zool. Ser., 12, p. 255, 1929—Tury-assú, São Luiz, Codó (Cocos), Fazenda Inhuma and Tranqueira, Maranhão (crit.).

*Troglodytes albicollis* (Cuvier MS.) Pucheran, Arch. Mus. Hist. Nat., Paris, 7, p. 337, 1855—Brazil (type in Paris Museum examined).<sup>1</sup>

*Thryothorus genibarbis harterti* Snethlage, Journ. Orn., 73, p. 264, 1925—São Paulo, Serra de Ibiapaba, Ceará (type in Museo Nacional, Rio de Janeiro ?); idem, Bol. Mus. Nac. Rio de Janeiro, 2, No. 6, p. 4, 1926—Ceará.

**Range.**—Eastern Brazil, from Espirito Santo (Santa Leopoldina) north to Pará, and along the south bank of the lower Amazon to the right bank of the Rio Madeira (Borba; Calama; Santa Isabel, Rio Preto).<sup>2</sup>

8: Brazil, Maranhão (São Luiz, 3; Tury-assú, 1; Codó, Cocos, 1; Tranqueira, 2; Fazenda Inhuma, Alto Parnahyba, 1).

***Thryothorus genibarbis juruanus* Ihering.<sup>3</sup> UPPER AMAZONIAN MOUSTACHED WREN.**

*Thryothorus genibarbis juruanus* Ihering, Rev. Mus. Paul., 6, p. 431, 1905—Rio Juruá, Brazil (type in Museu Paulista examined); Hellmayr, Nov. Zool., 14, p. 345, 1907—Humaytá, Rio Madeira (crit.); idem, l.c., 15, p. 18, 1908—Rio Juruá and Humaytá; idem, l.c., 17, p. 263, 1910—Humaytá.

*Thryothorus genibarbis juruanus* Ihering and Ihering, Cat. Faun. Braz., 1, p. 323, 1907—Rio Juruá.

<sup>1</sup> The subspecific identity of the type cannot be ascertained owing to its excessively bleached condition. The specimen was obtained by the famous botanist Auguste de Saint-Hilaire, reaching the Paris Museum in 1821. The under parts of the mounted bird are almost wholly whitish, the rufescent tinge having disappeared through fading, while the coloration of the dorsal surface has also undergone considerable post-mortem change.

<sup>2</sup> Careful comparison of a large number of birds from Bahia and Maranhão with a very satisfactory series from the lower Amazon failed to reveal any constant difference. The few available specimens from the right bank of the Rio Madeira appear to be also alike. While no material has been examined from Ceará, the agreement between the inhabitants of Bahia and Pará renders the possible distinctness of *T. g. harterti* more than problematical.

**Material examined.**—Bahia: Bahia City, 6; "Bahia" trade skins, 18.—Maranhão: Primeira Cruz, 1; Miritiba, 1; São Luiz, 3; Tury-assú, 1; Codó, Cocos, 1; Tranqueira, 2; Fazenda Inhuma, 2.—Pará: Benevides, 11; Igarapé-Assú, 2; Santo Antonio do Prata, 3; Pará, 1; Villa Braga, Rio Tapajóz, 1; Itaituba, Rio Tapajóz, 1.—Amazonas: Borba, Rio Madeira, 1; Calama, Rio Machados, 1; Santa Isabel, Rio Preto, 3.

<sup>3</sup> *Thryothorus genibarbis juruanus* Ihering, a very poor race, differs from the typical form by, on average, larger size, stronger bill, and generally somewhat paler, less buffy under parts. All of these divergencies are, however, completely bridged by individual variation, and a good many of the upper Amazonian birds can hardly be told apart.

Specimens from Humaytá agree with a series from the Rio Purús. Wing, 67–70, (female) 61–67; tail, 57–61, (female) 53–58; bill, 17–18½.

**Material examined.**—Rio Purús: Arima, 7; Nova Olinda, 2; Hyutanahán, 3.—Rio Juruá: 1 (the type).—Rio Madeira: Humaytá, 3.

(?) *Thryothorus genibarbis* (not of Swainson) Allen, Bull. Amer. Mus. N. H., 2, p. 79, 1889—Falls of the Rio Madeira, Beni, Bolivia.

*Range*.—Upper Amazonia, in western Brazil, south of the Amazon from the Rio Purús to the left bank of the Rio Madeira (Humaytá), possibly extending into northern Bolivia (Falls of the Rio Madeira, Dept. Beni).

***Thryothorus genibarbis intercedens* Hellmayr.<sup>1</sup> CENTRAL BRAZILIAN MOUSTACHED WREN.**

*Thryothorus genibarbis intercedens* Hellmayr, Nov. Zool., 15, p. 17, 1908—Rio Thesouras, Goyaz, Brazil (type in Tring Museum); idem, l.c., p. 18, 1908—Goyaz (Goyaz, Rio Thesouras, Fazenda Esperança, Tenente Borges) and Matto Grosso (Cuyabá, Villa Bella, and Engenho do Gama); Ménégauz, Rev. Franç. d'Orn., No. 98, p. 84, 1917—Caceres, Matto Grosso; Hartert, Nov. Zool., 27, p. 505, 1920—Rio Thesouras, Goyaz.

*Thryothorus genibarbis intercedens* Lima, Rev. Mus. Paul., 12, (2), p. 94, 1920—Matto Grosso.

*Pheugopedius genibarbis intercedens* Naumburg, Bull. Amer. Mus. N. H., 60, p. 325, 1930—Descalvados, Tapirapoan, Barão Melgaço, and Primavera, Matto Grosso.

*Thryothorus melanos* (not of Vieillot) Pelzeln, Orn. Bras., 1, p. 48, 1868—part, Goyaz (Goyaz, Tenente Borges) and Matto Grosso (Cuyabá, Engenho do Gama, and Villa Bella de Matto Grosso).

*Thryothorus genibarbis* (not of Swainson) Allen, Bull. Amer. Mus. N. H., 3, p. 343, 1891—Chapada, Matto Grosso.

*Thryothorus genibarbis* Ihering and Ihering, Cat. Faun. Braz., 1, p. 323, 1907—part, Goyaz and Matto Grosso.

*Range*.—Tableland of central Brazil, in states of Goyaz and Matto Grosso.

**\**Thryothorus genibarbis bolivianus* (Todd).<sup>2</sup> BOLIVIAN MOUSTACHED WREN.**

<sup>1</sup> *Thryothorus genibarbis intercedens* Hellmayr: Similar to *T. g. genibarbis*, but with slenderer bill; pileum less sooty, Dresden brown rather than light mummy brown or raw umber; back decidedly paler, Sudan or antique brown instead of argus or amber brown; foreneck never tinged with grayish; breast and abdomen more strongly shaded with deep buff. Wing, 63–67, (female) 59–63; tail, 57–62, (female) 53–57; bill, 15½–17.

Birds from western Matto Grosso (Villa Bella and Engenho do Gama, Rio Guaporé) have the under parts darker, more ochraceous, thus forming the transition to *T. g. bolivianus*.

*Material examined*.—Goyaz: Rio Thesouras, 2; Fazenda Esperança, 1; Goyaz City, 3; Fazenda do Tenente Borges, 1.—Matto Grosso: Cuyabá, 1; Chapada, 7; Villa Bella, 1; Engenho do Gama, Rio Guaporé, 1.

<sup>2</sup> *Thryothorus genibarbis bolivianus* (Todd): Very close to *T. g. intercedens*, but sides of neck darker gray; foreneck tinged with ashy; breast and abdomen much deeper, more uniformly ochraceous (between ochraceous-buff and ochraceous-tawny). Wing (males), 58–64; tail, 55–60; bill, 15–16.

*Material examined*.—Bolivia: Buena Vista, Dept. Santa Cruz, 3; unspecified, d'Orbigny Coll., 1; Songo, Yungas of La Paz, 2.

*Pheugopedius genibarbis bolivianus* Todd, Proc. Biol. Soc. Wash., 26, p. 170, 1913—Province del Sara, Dept. Santa Cruz, Bolivia (type in Carnegie Museum); Laubmann, Wissens. Erg. Deuts. Gran Chaco Exp., Vögel, p. 314, 1930—Buena Vista, Bolivia (crit.).

*Thryothorus genibarbis bolivianus* Hellmayr, Nov. Zool., 28, p. 268, 1921—Bolivia (Carcuata, Songo, and Prov. del Sara; crit.).

*Troglodytes coraya* (not *Turdus coraya* Gmelin) Lafresnaye and d'Orbigny, Syn. Av., 1, in Mag. Zool., 7, cl. 2, p. 25, 1837—Yungas and Guarayos, Bolivia.

*Thryothorus coraya* d'Orbigny, Voy. Amér. Mérid., Ois., p. 229, 1838—Carcuata, Prov. Yungas, and Concepción, Guarayos, Bolivia.

*Thryothorus melanops* (not *T. melanos* Vieillot) Sclater and Salvin, Proc. Zool. Soc. Lond., 1879, p. 593—Simacu, Tilotilo, and Carcuata (Yungas), Concepción (Chiquitos), Bolivia.

*Thryothorus genibarbis* (not of Swainson) Sharpe, Cat. Bds. Brit. Mus., 6, p. 233, 1881—part, Bolivia.

*Thryothorus mystacalis* [sic] (not *T. mystacalis* Sclater) Allen, Bull. Amer. Mus. N. H., 2, pp. 79, 139, 1889—Mapiri, Bolivia.

*Range*.—Tropical zone of eastern Bolivia.

1: Bolivia (Buena Vista, Dept. Santa Cruz, 1).

**\**Thryothorus coraya ridgwayi* Berlepsch.<sup>1</sup> BRITISH GUIANA WREN.**

*Thryothorus ridgwayi* Berlepsch, Journ. Orn., 37, p. 293, 1889—British Guiana (type from Bartica Grove in Berlepsch Collection, now in Frankfort Museum, examined); Hellmayr, Journ. Orn., 51, p. 534, 1903—Bartica Grove and Camacusa, British Guiana (diag.).

*Thryothorus coraya berlepschi* Brabourne and Chubb, Ann. Mag. Nat. Hist., (8), 10, p. 262, Aug., 1912—Bartica Grove (type in McConnell Collection, now in British Museum, examined).

<sup>1</sup> *Thryothorus coraya ridgwayi* Berlepsch: Similar to *T. c. coraya*, but under parts posterior to the foreneck deep ochraceous to bright antique brown, more brownish on the flanks.

Birds from Bartica Grove (including the type) and Camacusa on the Mazaruni River, as well as a large series from the Roraima region, seem to belong to one and the same form. It may be that the specimens from the mountainous districts are on average brighter and more uniform ochraceous below, but there are so many exceptions to this rule that further subdivision would serve no practical purpose. In the estuary of the Essequibo, along the Supernaam and Ituribisci rivers, individuals with bright ochraceous under parts are comparatively rare. In fact, we have seen only one from Supernaam, which matched the inland birds in that respect. The majority are duller, more of an ochreous brown with more or less buffy or grayish suffusion in the middle, and certain examples run very close to typical *coraya*. The lower Essequibo is apparently the zone of intergradation between *coraya* and *ridgwayi*. The name *ituribisciensis* has been bestowed upon such an intermediate, but there is, of course, no justification in retaining it for inhabitants of a small area which do not possess any character of their own.

*Material examined*.—Venezuela: Paulo, Roraima (alt. 4,000 ft.), 3; Arabupu, Roraima (alt. 4,200 ft.), 1.—British Guiana: Roraima (alt. 3,500 ft.), 6; Caramang River (alt. 1,500 ft.), 4; Camacusa, Mazaruni River, 1; Mazaruni River, 1; Bartica Grove, 3; "Great Falls," 1; Camacabra Creek, 1; Supernaam River, 5; Ituribisci River, 3.

*Thryothorus oyapocensis ituribisciensis* Brabourne and Chubb, Ann. Mag. Nat. Hist., (8), 10, p. 262, Aug., 1912—Ituribisci River, British Guiana (type in McConnell Collection, now in British Museum, examined).

*Thryothorus coraya* (not *Turdus coraya* Gmelin) Cabanis, in Schomburgk, Reisen Brit. Guiana, 3, p. 674, 1848—coastal forests of British Guiana; Sharpe, Cat. Bds. Brit. Mus., 6, p. 234, 1881—part, descr. and spec. a, b, Bartica Grove; Salvin, Ibis, 1885, p. 201—Bartica Grove, Merumé Mountains, and Roraima, British Guiana.

*Thryothorus coraya griseigula* (not *Formicivora griseigula* Lawrence) Hellmayr, Nov. Zool., 20, p. 229, 1913—British Guiana (monog.).

*Thryothorus griseigula* Beebe, Trop. Wild Life, 1, p. 135, 1917—Bartica Grove.

*Pheugopedius griseigula* Chubb, Bds. Brit. Guiana, 2, p. 356, 1921—British Guiana.

*Pheugopedius coraya ridgwayi* Chapman, Bull. Amer. Mus. N. H., 63, p. 106, 1931—Paulo and Arabupu, Roraima (crit.).

*Range*.—British Guiana, west of the Essequibo, and adjacent parts of southeastern Venezuela (Roraima).

4: British Guiana (Caramang River, 3; Mazaruni River, 1).

**\*Thryothorus coraya coraya** (Gmelin). CORAYA WREN.

*Turdus coraya* Gmelin, Syst. Nat., 1, (2), p. 825, 1789—based on "Le Coraya" Buffon and Daubenton, Pl. Enl., pl. 701, fig. 1; Cayenne, French Guiana.

*Thryothorus melanos* Vieillot, Nouv. Dict. Hist. Nat., nouv. éd., 34, p. 56, 1819—"Brésil" (type in Laugier Collection).

*Thryothorus oyapocensis* Ridgway, Proc. U. S. Nat. Mus., 10, "1887," p. 516, note, Aug., 1888—Oyapock, French Guiana (type in U. S. National Museum).

*Thryothorus coraya* Selater, Cat. Coll. Amer. Bds., p. 21, 1862—Cayenne; Pelzeln, Orn. Bras., 1, p. 48, 1868—part, Barra do Rio Negro=Manáos (spec. examined); Sharpe, Cat. Bds. Brit. Mus., 6, p. 234, 1881—part, spec. c, d, Cayenne; Ménégaux, Bull. Mus. Hist. Nat. Paris, 10, p. 115, 1904—Saint Georges d'Oyapock and Mahury, French Guiana; Berlepsch, Nov. Zool., 15, pp. 106, 316, 1908—Approuague, Ipousin, St. Georges d'Oyapock, and Mahury, French Guiana; Penard and Penard, Vog. Guyana, 2, p. 521, 1910—Surinam; Snethlage, Bol. Mus. Goeldi, 8, p. 491, 1914—Rio Jary (Santo Antonio da Cachoeira), Obidos, and Rio Jamundá, Brazil.

*Thryothorus coraya coraya* Hellmayr, Journ. Orn., 51, p. 532, 1903—part, Cayenne; Ménégaux, Bull. Mus. Hist. Nat. Paris, 13, p. 496, 1907—French Guiana; Hellmayr, Nov. Zool., 20, p. 228, 1913—French Guiana, Surinam, and Manáos (monog.); Bangs and Penard, Bull. Mus. Comp. Zool., 62, p. 81, 1918—Paramaribo, Lelydorp, and Rijsdijkweg, Dutch Guiana.

*Thryothorus oyapocensis oyapocensis* Brabourne and Chubb, Ann. Mag. Nat. Hist., (8), 10, p. 262, 1912—French Guiana.

*Formicivora griseigula* Lawrence, Ann. N. Y. Acad. Sci., 2, p. 382, June, 1883—British Guiana (=juv.; type in the American Museum of Natural History, New York, examined); Allen, Bull. Amer. Mus. N. H., 2, p. 151, 1889 (crit.).

**Range.**—French and Dutch Guiana; adjoining parts of British Guiana (east of the Essequibo); and northern Brazil, north of the Amazon, west to Manaós.<sup>1</sup>

2: Brazil (Itacoatiará, 1; Manaós, 1).

***Thryothorus coraya herberti* Ridgway.<sup>2</sup> HERBERT'S WREN.**

*Thryothorus herberti* (Riker MS.) Ridgway, Proc. U. S. Nat. Mus., 10, "1887," p. 516, Aug., 1888—Diamantina, near Santarém, Brazil (type in U. S. National Museum); Chapman and Riker, Auk, 7, p. 266, 1890—Diamantina; Snethlage, Bol. Mus. Goeldi, 8, p. 490, 1914—Rio Tocantins (Cametá, Aramatheua), Rio Xingú (Victoria), Rio Curuá (Malocca de Manuelsinho), Cussary, Rio Tapajóz (Santarém, Pimental), and Rio Jamauchim (Tucunará).

*Thryothorus coraya herberti* Hellmayr, Journ. Orn., 51, p. 533, 1903—part, Cara-raucú, Brazil; idem, Nov. Zool., 20, p. 231, 1913—south bank of lower Amazon (monog.).

*Thryothorus coraya* (not *Turdus coraya* Gmelin) Pelzeln, Orn. Bras., 1, p. 48, 1868—part, Cara-raucú, Brazil (spec. examined).

**Range.**—Northern Brazil, south of the Amazon, from the Tocantins west to the Ilhas de Tupinambaranas.

<sup>1</sup> Contrary to what obtains in *T. c. ridgwayi*, the present form is subject to very little variation. A series from Manaós and several specimens from the north bank of the lower Amazon (Rio Jary, Faro, and Itacoatiará) agree in every way with another from French Guiana. Skins from the Demerara (Wismar) and the right bank of the Essequibo (Rockstone), while slightly tending towards *ridgwayi*, are so much nearer the Cayenne form that I am now inclined to refer the wrens of eastern British Guiana to typical *coraya*. The type of *Formicivora griseigula* is a bird in juvenile plumage, hence not identifiable with absolute certainty. The collector, Alexander, having worked mostly on the Demerara, it seems, however, pretty safe to place the name in the synonymy of *T. c. coraya*.

**Material examined.**—British Guiana: Rockstone, Essequibo River, 4; Wismar, Demerara, 1; unspecified, 1 (type of *F. griseigula* Lawrence).—Dutch Guiana: near Paramaribo, 1.—French Guiana: Cayenne, 1; Approuague River, 5; Ipousin, 2; Saint Jean du Maroni, 2.—Brazil: Santo Antonio da Cachoeira, Rio Jary, 1; Faro, Rio Jamundá, 1; Itacoatiará, 1; Manaós, 8.

<sup>2</sup> *Thryothorus coraya herberti* Ridgway: Nearest to *T. c. coraya*, but differs by having the sides of the head almost uniform black (relieved only by a very narrow, inconspicuous white superciliary streak and a few extremely narrow lines of the same on the auriculars); the upper tail coverts bright rufous brown like the back and devoid of dusky bars; and the light tail bands rufescent instead of dull grayish. Wing, 62–64, (female) 59; tail, 58–60, (female) 56; bill, 16–17.

**Material examined.**—Brazil: Cametá, Rio Tocantins, 1; Tucunará, Rio Jamauchim, 1; Cara-raucú, Ilhas de Tupinambaranas, 1.

**\*Thryothorus coraya amazonicus Sharpe.<sup>1</sup> AMAZONIAN WREN.**

*Thryothorus amazonicus* Sharpe, Cat. Bds. Brit. Mus., 6, p. 235, pl. 15, fig. 1, 1881—Sarayacu, Ucayali River, eastern Peru (type in British Museum examined); Berlepsch, Journ. Orn., 37, p. 293, 1889—Yurimaguas, Peru (spec. examined),

*Thryothorus coraya amazonicus* Hellmayr, Journ. Orn., 51, p. 533, 1903—Yurimaguas (crit.); idem, Nov. Zool., 20, p. 231, 1913—Sarayacu, Ucayali, and Yurimaguas, lower Huallaga, Peru (monog.).

*Sphenura coraya amazonica* Zimmer, Field Mus. Nat. Hist., Zool. Ser., 17, p. 404, 1930—Vista Alegre and Chinchao, Dept. Huánuco, Peru (crit.).

*Thryothorus coraya* (not *Turdus coraya* Gmelin) Sclater and Salvin, Proc. Zool. Soc. Lond., 1866, p. 178—part, Sarayacu; idem, l.c., 1873, p. 257—part, Sarayacu; Taczanowski, l.c., 1882, p. 5—Yurimaguas.

*Thryothorus griseipectus* (not of Sharpe) Taczanowski, Orn. Pér., 1, p. 517, 1884—part, Sarayacu and Yurimaguas.

**Range.**—Eastern Peru, south of the Marañón, in depts. of Loreto (Yurimaguas, lower Huallaga; Sarayacu, Ucayali River) and Huánuco (Vista Alegre and Chinchao).

2: Peru (Vista Alegre, 1; Chinchao, 1).

**\*Thryothorus coraya albiventris Taczanowski.<sup>2</sup> TACZANOWSKI'S WREN.**

*Thryothorus albiventris* Taczanowski, Proc. Zool. Soc. Lond., 1882, p. 5—Chirimoto, Huayabamba Valley, Peru (type lost, formerly in Warsaw)

<sup>1</sup> *Thryothorus coraya amazonicus* Sharpe: Much like *T. c. coraya*, but distinguishable by its lighter, less chestnut upper parts and paler, less rufescent flanks. In the grayish (only basally on the edges buffy-tinged) light tail bands the two forms are practically identical as also in the possession of a distinct white superciliary streak.

Owing to paucity of material, it is hardly possible at present to say much definite about the variation of the Amazonian Wren. An immature male from Sarayacu differs from two adults, one from Sarayacu, the other from Yurimaguas, by less dusky pileum and more buffy under parts. The two Huánuco birds, when compared with the two Sarayacu skins, show about the same variation in the amount of buff on the lower surface. They agree in tail markings and color of back, but have the auriculars somewhat less streaked with white. Wing of adult males: Sarayacu (type), 69; Yurimaguas, 62; Vista Alegre, 67; Chinchao, 68; tail, 56, 60, 61, 62; bill, 17½–19.

**Material examined.**—Sarayacu, Ucayali, 2; Yurimaguas, Huallaga, 1; Vista Alegre, 1; Chinchao, 1.

<sup>2</sup> *Thryothorus coraya albiventris* Taczanowski: Exceedingly close to *T. c. amazonicus*, but with decidedly smaller (slenderer as well as shorter) bill; middle of breast and abdomen nearly white, flanks less brownish. Wing (adult male), 67; tail, 65; bill, 16.

This form is doubtfully separable from, and may prove to be identical with, *T. c. amazonicus*. However, on comparing the adult bird from Moyobamba with the five specimens of the preceding race, I could not fail to notice its markedly smaller bill and less buffy lower surface, which is mainly grayish white, with a hardly perceptible delicate creamy tinge to the tips of the median pectoral feathers. The tail bands are grayish as in *coraya* and *amazonicus*, and the white superciliary streak is well pronounced, while the white streaking of the auriculars is about as slight as in the Huánuco specimens of *amazonicus*.

Museum; cf. Sztolcman and Domaniewski, *Ann. Zool. Mus. Pol. Hist. Nat.*, 6, p. 153, 1927; idem, *Orn. Pér.*, 1, p. 518, 1884—Chirimoto.

*Range*.—Northern Peru, south of the Marañón, in Dept. San Martín (Chirimoto, Huayabamba Valley; Moyobamba).

3: Peru (Moyobamba, 3).

**\*Thryothorus coraya cantator Taczanowski.<sup>1</sup> JELSKI'S WREN.**

*Thryothorus cantator* Taczanowski, *Proc. Zool. Soc. Lond.*, 1874, p. 130—Amable Maria, Montaña de Vitoc, Dept. Junín, Peru (type lost, formerly in Warsaw Museum; cf. Sztolcman and Domaniewski, *Ann. Zool. Mus. Pol. Hist. Nat.*, 6, p. 153, 1927); idem, *l.c.*, p. 504—Amable Maria; Sharpe, *Cat. Bds. Brit. Mus.*, 6, p. 403, 1881—central Peru; Taczanowski, *Orn. Pér.*, 1, p. 519, 1884—Pampa Jesus, Amable Maria, and Pumamarca, Dept. Junín; Berlepsch and Stolzmann, *Proc. Zool. Soc. Lond.*, 1896, p. 328—La Merced and La Gloria, Chanchamayo, Peru.

*Thryothorus coraya cantator* Hellmayr, *Nov. Zool.*, 20, p. 232, 1913—central Peru, Dept. Junín (monog.).

*Range*.—Central Peru, in Dept. Junín (San Ramón, La Merced, La Gloria, Chanchamayo, Amable Maria, Pumamarca, Chelpes).

1: Peru: (San Ramón, Chanchamayo, 1).

**Thryothorus coraya griseipectus Sharpe.<sup>2</sup> GRAY-BREASTED WREN.**

<sup>1</sup>*Thryothorus coraya cantator* Taczanowski: Closely allied to *T. c. amazonicus*, but differs by bright cinnamon-brown instead of dull ashy or brownish gray tail bands and by lacking the white streaks on sides of head. Similar to *T. c. herberti* in coloration of tail, but much lighter rufous above and on flanks, and sides of head practically without white markings. Wing (adult male) 65–69, (female) 65; tail, 58–66, (female) 58; bill, 16–18.

*Material examined*.—Peru, Dept. Junín: Chanchamayo, 2; La Merced (alt. 2,600 ft.), 2; San Ramón, 1; Chelpes (alt. 7,300 ft.), 1.

<sup>2</sup>*Thryothorus coraya griseipectus* Sharpe: Differs from the other upper Amazonian races by smaller size; slenderer bill; brighter rufous (argus brown to chestnut-rufous) upper parts; pale fulvescent brown (instead of grayish) tail bands; and by having the lower surface, posterior to the throat, pale neutral gray excepting the dark rufescent brown flanks. Wing, 60–65, (female) 58–60; tail, 51–57, (female) 51–53; bill, 16–18.

In coloration of dorsal surface and unbarred rufous upper tail coverts, this form resembles *T. c. herberti*, but is darker underneath with the median portion of breast and abdomen distinctly grayish, while the light tail bands are less cinnamonaceous, being pale hair brown tinged with drab or pale rufescent toward the edges; besides, the auriculars are more conspicuously streaked with white.

Specimens from eastern Ecuador (*P. sunensis*) are inseparable from typical *griseipectus*, as represented by skins from the north bank of the Marañón. The supposed difference in the color of the upper parts is due to the Nauta example used by Dr. Chapman for comparison having turned "foxy" through age. Specimens from the upper Rio Negro have smaller bills and are somewhat deeper chestnut above, but the divergency is rather insignificant.

*Material examined*.—Ecuador: Sarayacu, 3; Archidona, 1; Catapiño, 1; Boca de Curaray, 2; Rio Suno, 3; Boca Lagarto Cocha, 1.—Peru: Nauta, 7; Pebas, 2; Rio Tigré, 2.—Brazil: Marabitanas, 4; Rio Içanna, 1; Rio Negro, between Santa Isabel and Castanheiro, 1.

*Thryothorus griseipectus* Sharpe, Cat. Bds. Brit. Mus., 6, p. 236, pl. 15, fig. 2, 1881—Nauta, Pebas, and Loretoyacu, Peru, and Sarayacu, Ecuador (type from Nauta in the British Museum examined); Taczanowski, Orn. Pér., 1, p. 517, 1884—part, Nauta, Iquitos, and Pebas, Peru; Goodfellow, Ibis, 1901, p. 313—Archidona, Ecuador.

*Thryothorus coraya griseipectus* Hellmayr, Nov. Zool., 20, p. 232, 1913—northeastern Peru (north bank of the Marañón), eastern Ecuador, and upper Rio Negro, Brazil (monog.).

*Pheugopedius coraya griseipectus* Chapman, Bull. Amer. Mus. N. H., 55, p. 567, 1926—"Napo," Ecuador.

*Thryothorus coraya* (not *Turdus coraya* Gmelin) Sclater, Proc. Zool. Soc. Lond., 26, p. 64, 1858—Rio Napo, Ecuador; Pelzeln, Orn. Bras., 1, p. 48, 1868—part, Rio Negro between Santa Isabel and Castanheiro, Marabitanas, and Rio Içanna, Brazil; Sclater and Salvin, Proc. Zool. Soc. Lond., 1866, p. 178—part, Nauta; idem, l.c., 1867, p. 977—Pebas; idem, l.c., 1873, p. 257—part, Nauta and Pebas, Peru.

*Thryothorus coraya coraya* Hellmayr, Journ. Orn., 51, p. 532, 1903—part, Marabitanas, Rio Negro, and Rio Içanna.

*Pheugopedius sunensis* Chapman, Amer. Mus. Nov., 205, p. 10, Dec., 1925—Rio Suno, above Avila, Ecuador (type in the American Museum of Natural History, New York); idem, Bull. Amer. Mus. N. H., 55, p. 566, 1926—Rio Suno and below San José, Ecuador.

*Range*.—Northeastern Peru, on the north bank of the Rio Marañón (Nauta, Pebas, Loretoyacu, Iquitos), extending north into eastern Ecuador and east to the upper Rio Negro, Brazil.

### ***Thryothorus coraya caurensis* Berlepsch and Hartert.<sup>1</sup> CAURA WREN.**

*Thryothorus griseipectus caurensis* Berlepsch and Hartert, Nov. Zool., 9, p. 7, 1902—Nicare, Caura River, Venezuela (type in Tring Museum examined).

*Pheugopedius griseipectus caurensis* Cherrie, Sci. Bull., Mus. Brookl. Inst., 2, p. 149, 1916—Caura River, Venezuela.

*Thryothorus coraya caurensis* Hellmayr, Nov. Zool., 20, p. 233, 1913—Caura Valley, Venezuela (monog.); Hartert, l.c., 27, p. 505, 1920—Nicare (note on type).

*Range*.—Eastern Venezuela, in the Caura Valley (Nicare, La Union, La Pricion).

### **\**Thryothorus mystacalis mystacalis* Sclater. SCLATER'S MOUTHED WREN.**

*Thryothorus mystacalis* Sclater, Proc. Zool. Soc. Lond., 28, p. 64, 1860—Pallatanga, Ecuador (type in coll. P. L. Sclater, now in British Museum);

<sup>1</sup> *Thryothorus coraya caurensis* Berlepsch and Hartert: Similar to *T. c. griseipectus*, but flanks much less extensively as well as paler rufescent brown. Wing, 61–64, (female) 56–59; tail, 50–55, (female) 45–49; bill, 15–18.

*Material examined*.—Venezuela: Caura Valley, 12.



idem, l.c., p. 74, 1860—Lloa, Ecuador; idem, Cat. Coll. Amer. Bds., p. 22, 1862—Pallatanga; Sharpe, Cat. Bds. Brit. Mus., 6, p. 233, 1881—part, Pallatanga; Berlepsch and Taczanowski, Proc. Zool. Soc. Lond., 1883, p. 540—Chimbo, Ecuador; idem, l.c., 1884, p. 285—Cayandeled, Ecuador; Salvadori and Festa, Boll. Mus. Zool. Torino, 14, No. 357, p. 7, 1899—Rio Peripa, Ecuador.

*Thryothorus mystacalis mystacalis* Hellmayr and Seilern, Arch. Naturg., 78, A, Heft 5, p. 42, 1912—western Ecuador.

*Pheugopedius mystacalis mystacalis* Chapman, Bull. Amer. Mus. N. H., 36, p. 515, 1917—part, Bucay and junction of Chancan and Chiguancay rivers, Ecuador, and (?) La Candela, near San Agustín, and below Andalucía, central Andes, Colombia; idem, l.c., 55, p. 565, 1926—Esmeraldas, road to Nanegal, Chimbo, above Zaruma, Punta Santa Ana, Las Piñas, and Alamor, Ecuador.

**Range.**—Tropical and Subtropical zones of western Ecuador and (?) southern Colombia (sources of the Magdalena).<sup>1</sup>

1: Ecuador (Puente de Chimbo, 1).

**\**Thryothorus mystacalis saltuensis* (Bangs).<sup>2</sup> WEST COLOMBIAN MOUSTACHED WREN.**

*Pheugopedius mystacalis saltuensis* Bangs, Proc. Biol. Soc. Wash., 23, p. 74, 1910—San Luis Bitaco Valley, western Andes, Colombia (type now in Museum of Comparative Zoology, Cambridge, Mass.; cf. Bangs, Bull. Mus. Comp. Zool., 70, p. 316, 1930).

*Thryothorus mystacalis saltuensis* Hellmayr and Seilern, Arch. Naturg., 78, A, Heft 5, p. 42, 1912—part, western Colombia (San Luis Bitaco Valley, Santa Elena, "Medellín").

*Thryothorus mystacalis* (not of Sclater, 1860) Sclater and Salvin, Proc. Zool. Soc. Lond., 1879, p. 493—Santa Elena, Antioquia; Sharpe, Cat. Bds. Brit. Mus., 6, p. 233, 1881—part, Colombia.

*Pheugopedius mystacalis mystacalis* Chapman, Bull. Amer. Mus. N. H., 36, p. 515, 1917—part, San Antonio and Las Lomitas (western Andes); Popayan, Miraflores and Salento (western slope of central Andes), Colombia (crit.).

**Range.**—Subtropical zone of the western and central Andes of Colombia.

2: Colombia (El Eden, east Quindío Andes, 1; Miraflores, east of Palmira, central Andes, 1).

<sup>1</sup> We have seen only specimens from western Ecuador (Chimbo, 2; Cayandeled, 1; Rio Peripa, 1), which agree fairly well together. Birds from the sources of the Magdalena, central Andes of Colombia, are stated by Chapman to differ by smaller bills and somewhat more rufescent abdomen, thus verging towards *T. m. amaurogaster*.

<sup>2</sup> *Thryothorus mystacalis saltuensis* (Bangs): Similar to *T. m. mystacalis*, but gray of crown slightly clearer; foreneck and chest somewhat grayer; abdomen more deeply buff; dusky barring of tail less distinct, often broken. Wing, 71, (female) 63–64; tail, 68; bill, 17–19.

**Material examined.**—Colombia: "Medellín," 1; El Eden, 1; Miraflores, 1.

**Thryothorus mystacalis amaurogaster** (Chapman).<sup>1</sup> TAWNY-BREASTED WREN.

*Phlegopediurus mystacalis amaurogaster* Chapman, Bull. Amer. Mus. N. H., 33, p. 179, 1914—Buena Vista, above Villavicencio, eastern Andes, Colombia (type in the American Museum of Natural History, New York); idem, l.c., 36, p. 516, 1917—Buena Vista.

*Thryothorus mystacalis* (not of Sclater) Sharpe, Cat. Bds. Brit. Mus., 6, p. 233, 1881—part, "Bogotá."

*Range*.—Subtropical zone of the eastern Andes of Colombia.

**\*Thryothorus mystacalis consobrinus** Madarász.<sup>2</sup> MÉRIDA MOUSTACHED WREN.

*Thryothorus consobrinus* Madarász, Ann. Mus. Nat. Hung., 2, p. 115, 1904—Mérida, Venezuela (type in Hungarian National Museum).

*Thryothorus mystacalis consobrinus* Hellmayr and Seilern, Arch. Naturg., 78, A, Heft 5, p. 42, 1912—Andes of Mérida (crit.).

*Thryothorus coraya* (not *Turdus coraya* Gmelin) Sclater and Salvin, Proc. Zool. Soc. Lond., 1875, p. 234—Mérida.

*Thryothorus mystacalis* (not of Sclater) Tristram, Cat. Coll., p. 167, 1889—Mérida, "Ecuador" = Venezuela.

*Phlegopediurus macrurus annectens* Todd, Ann. Carnegie Mus., 8, p. 205, 1912—Anzoategui, State of Lara, Venezuela (type in Carnegie Museum examined); idem, l.c., 18, p. 356, 1928 (crit.).

*Range*.—Subtropical zone of northwestern Venezuela, in states of Lara and Mérida.

2: Venezuela, Mérida (Hechisera, 1; Duramos, 1).

**Thryothorus mystacalis ruficaudatus** Berlepsch.<sup>3</sup> RUFOUS-TAILED WREN.

<sup>1</sup> *Thryothorus mystacalis amaurogaster* (Chapman): Much darker than *mystacalis* and *saltuensis*; pileum very dark sooty brown; back and wings deep chestnut rufous; tail darker rufous; auriculars more solidly black; breast and abdomen strongly washed with ochraceous-tawny. Wing (male), 70; tail, 66; bill, 19.

*Material examined*.—Colombia: Buena Vista, 2; "Bogotá," 2.

<sup>2</sup> *Thryothorus mystacalis consobrinus* Madarász: Similar to *T. m. mystacalis* in dull rufescent, regularly and broadly black-barred tail; but bill slenderer; superciliaries and malar streak slightly tinged with buffy; foreneck and chest decidedly buffy instead of grayish; pileum paler, more like *T. m. saltuensis*. Wing, 65–70, (female) 62–65; tail, 62–72, (female) 59–62; bill, 17–18.

The type of *P. m. annectens* seems to be identical with Mérida examples.

*Material examined*.—Lara: Anzoategui, 1.—Mérida: Valle, 1; Mérida, 2; Hechisera, 3; Duramos, 1.

<sup>3</sup> *Thryothorus mystacalis ruficaudatus* Berlepsch: Nearest to *T. m. consobrinus*, but immediately recognizable by the nearly uniform rufous tail. Besides, supraloral and superciliary streaks, malar stripe, lower throat, and foreneck are much brighter buff, the breast brownish buff, and the edges to the remiges deeper rufous. The tail is either wholly uniform or shows mere traces of wavy cross lines. Wing, 71, (female) 65–68; tail, 73–74, (female) 63–68; bill, 17–18.

*Material examined*.—Dept. Federal: Galipán, Cerro del Avila, 1.—Carabobo: Cumbre de Valencia, 6.

*Thryothorus ruficaudatus* Berlepsch, Ibis, (5), 1, p. 491, 1883—"Puerto Cabello" (type in Berlepsch Collection, now in Frankfurt Museum).

*Thryothorus mystacalis ruficaudatus* Hellmayr and Seilern, Arch. Naturg., 78, A, Heft 5, p. 41, 1912—Cumbre de Valencia, Carabobo (crit.).

*Pheugopedius mystacalis ruficaudatus* Hellmayr, Arch. Naturg., 90, A, Heft 2, p. 150, 1924—Galipán, Cerro del Avila (crit.).

**Range.**—Subtropical zone of northern Venezuela, in Dept. Federal (Galipán, Cerro del Avila) and State of Carabobo (Cumbre de Valencia).

### **Thryothorus macrurus** Allen.<sup>1</sup> LONG-TAILED WREN.

*Thryothorus macrurus* Allen, Bull. Amer. Mus. N. H., 2, p. 137, 1889—vicinity of Bogotá, Colombia (type in the American Museum of Natural History, New York, examined).

*Pheugopedius macrurus* Chapman, Bull. Amer. Mus. N. H., 33, p. 180, 1914 (crit.).

**Range.**—Colombia (Bogotá collections). Known only from the type.

### **\*Thryothorus euophrys**<sup>2</sup> *euophrys* Sclater. FRASER'S WREN.

*Thryothorus euophrys* Sclater, Proc. Zool. Soc. Lond., 28, p. 74, 1860—Lloa, a few miles southwest of Quito, on the side of Pichincha, Ecuador (type in coll. P. L. Sclater, now in British Museum); idem, Cat. Coll. Amer. Bds., p. 21, 1862—Lloa; Sharpe, Cat. Bds. Brit. Mus., 6, p. 236, 1881—Ecuador; Berlepsch and Taczanowski, Proc. Zool. Soc. Lond., 1884, p. 285—Cechce and Cayanded; idem, l.c., 1885, p. 73—La Union; Salvadori and Festa, Boll. Mus. Zool. Torino, 14, No. 357, p. 7, 1899—Nanegal; Goodfellow, Ibis, 1901, p. 313—Pichincha, western Andes; Ménégau, Miss. Serv. Géog. Arm. Mes. Arc Mérid. Equat., 9, p. B 67, 1911—Huantupungo (Nanegal); Lönnberg and Rendahl, Ark. Zool., 14, No. 25, p. 77, 1922—road to Nanegal.

*Pheugopedius euophrys* Berlioz, Bull. Mus. Hist. Nat., Paris, 34, p. 72, 1928—Pilon and Alaguincho, Ecuador.

*Pheugopedius euophrys euophrys* Chapman, Bull. Amer. Mus. N. H., 55, p. 567, 1926—Pichincha, road to Guala, road to Mindo, near Nono, road to Nanegal, and Hacienda Garzón.

<sup>1</sup> *Thryothorus macrurus* Allen, based on a single skin of the well-known "Bogotá" preparation, is much like *T. m. saltuensis* in general coloration, but has a very differently colored tail. It is fuscous instead of rufescent; the two outer pairs of rectrices are externally margined and longitudinally striped with brownish on the outer web near the shaft, while the two succeeding pairs are faintly and irregularly barred on the outer web. In size (wing, 72; tail, 73), the type is closely approached by a specimen from Miraflores (wing, 71; tail, 68) and one from Bogotá (wing, 73; tail, 70). After cursory examination I am inclined to believe that it is merely a freak of *T. m. amaurogaster*, and if such turns out to be the case, Allen's name will take precedence.

<sup>2</sup> *Thryothorus euophrys* is clearly specifically distinct from *T. m. mystacalis*, the much larger feet and tarsi together with the black spotting on the foreneck in the adult plumage and the unmarked tail constituting its most striking characters.

*Cinnicerthia paramosa* Reichenow, Journ. Orn., 65, p. 391, 1917—Andes of Ecuador, near the limit of the Páramo zone (type in Berlin Museum examined;<sup>1</sup>=juv.).

**Range.**—Humid Temperate zone of the western slope of the Andes of Ecuador.<sup>2</sup>

1: Ecuador (above Gualea, 1).

### ***Thryothorus euophrys longipes* Allen.<sup>3</sup> LONG-LEGGED WREN.**

*Thryothorus longipes* Allen, Bull. Amer. Mus. N. H., 2, p. 138, 1889—"Ambato" = Baños, Ecuador (type in the American Museum of Natural History, New York, examined).

*Pheugopedius euophrys longipes* Chapman, Bull. Amer. Mus. N. H., 55, p. 567, 1926—"Ambato" (type), Galgala, Rio Upano, upper Sumaco, and above Baeza, eastern Ecuador (crit.).

*Thryothorus goodfellowi* Sclater, Bull. Brit. Orn. Cl., 11, p. 47, Feb., 1901—Papallacta, eastern Ecuador (type, now in Tring Museum, examined); Goodfellow, Ibis, 1901, p. 313—Papallacta; Hartert, Nov. Zool., 27, p. 505, 1920—Papallacta (note on type).

**Range.**—Humid Temperate zone of the eastern slope of the Andes of Ecuador.

### ***Thryothorus atriceps* (Chapman).<sup>4</sup> BLACK-HEADED WREN.**

*Pheugopedius atriceps* Chapman, Amer. Mus. Nov., 138, p. 13, Oct., 1924—Chaupe, northeast of Huancabamba, Peru (type in the American Museum of Natural History, New York).

**Range.**—Subtropical zone of northern Peru, in eastern section of Dept. Piura (Chaupe, alt. 6,100 ft., northeast of Huancabamba).

### ***Thryothorus albinucha albinucha* (Cabot).<sup>5</sup> CABOT'S WREN.**

<sup>1</sup> The type agrees with a juvenile bird from above Gualea. There is no reason for the assumption that it originated from the eastern slope of the Andes.

<sup>2</sup> *Material examined.*—West Ecuador: above Gualea, 5; Pichincha, 1; Cechce, 1; Huantupungo (Nanegal), 2; unspecified, 1.

<sup>3</sup> *Thryothorus euophrys longipes* Allen: Similar in adult plumage to *T. e. euophrys*, but the white color underneath less extensive and, as a rule, confined to the throat; black markings across chest less numerous; middle of breast and abdomen more grayish. Wing, 72, (female) 70; tail, 72, (female) 69; bill, 22–23.

*Material examined.*—Eastern Ecuador: Papallacta, 2; "Ambato," 1.

<sup>4</sup> *Thryothorus atriceps* (Chapman) is stated to be nearly related to *T. euophrys*, but to differ by black instead of brownish gray pileum, narrower black malar stripe, more grayish posterior under parts, etc. Wing (adult male), 75; tail, 64; tars., 30.5; bill, 21.5 mm.

This bird, with which we are not acquainted, is probably conspecific with the *T. euophrys* group.

<sup>5</sup> Not having seen this species, I follow Miller and Griscom in referring it to *Thryothorus*. Judging from the figure, I am inclined to believe it might be related to *T. felix*. Griscom (Bull. Amer. Mus. N. H., 64, p. 293, 1932) insists on its close relationship to *T. ludovicianus*, stating that "it is purely arbitrary to say that *T. ludovicianus berlandieri* and *T. albinucha subfulvus* are specifically distinct."

*Troglodytes albinucha* Cabot, Proc. Bost. Soc. N. H., 2, p. 258, 1847—Yalahao, Yucatan (type now in Museum of Comparative Zoology, Cambridge, Mass.; cf. Bangs, Auk, 32, p. 169, 1915, and Bull. Mus. Comp. Zool., 70, p. 315, 1930).

*Thryothorus albinucha* Baird, Rev. Amer. Bds., 1, p. 149, 1864—Yalahao, Yucatan (crit.); Salvin, Ibis, 1866, p. 191—Sakluk, Petén, Guatemala; idem, l.c., 1874, p. 326—Yucatan; Lawrence, Ann. Lyc. Nat. Hist. N. Y., 9, p. 199, 1869—Mérida, Yucatan; Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 94, pl. 7, fig. 2, 1880—Yucatan (Yalahao, Mérida) and Guatemala (Sakluk, Petén); Sharpe, Cat. Bds. Brit. Mus., 6, p. 224, 1881—Yucatan and Petén, Guatemala; Chapman, Bull. Amer. Mus. N. H., 8, p. 276, 1896—Chichen Itza, Yucatan.

*Thryomanes albinucha* Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 551, 1904—Yucatan and Petén, Guatemala (monog.); Cole, Bull. Mus. Comp. Zool., 50, p. 135, 1906—Chichen Itza, Yucatan.

*Thryothorus albinuchus albinuchus* Griscom, Amer. Mus. Nov., 235, p. 15, 1926—eastern Quintana Roo.

*Thryothorus petenicus* Salvin, Proc. Zool. Soc. Lond., 1863, p. 187—Petén [=near Sakluk], Guatemala (type now in British Museum); Baird, Rev. Amer. Bds., 1, p. 125, 1864—"Sakleek" River, near Petén, Guatemala (crit.).

*Range.*—Yucatan (Yalahao, Mérida, Chichen Itza, Puerto Morelos, La Vega), eastern Quintana Roo, and adjacent portion of Guatemala (Sakluk, near Petén).

### ***Thryothorus albinucha subfulvus* Miller and Griscom.<sup>1</sup> NICARAGUAN WREN.**

*Thryothorus albinucha subfulvus* Miller and Griscom, Amer. Mus. Nov., 159, p. 8, 1925—Calabasas, five miles south of Metapa, Nicaragua (type in the American Museum of Natural History, New York); Griscom, Bull. Amer. Mus. N. H., 64, p. 293, 1932—Sacapulas, Guatemala.

*Range.*—Arid interior of Nicaragua (Calabasas, five miles south of Metapa) and Guatemala (Sacapulas).

### **\**Thryothorus felix felix* Sclater. HAPPY WREN.**

*Thryothorus felix* Sclater, Proc. Zool. Soc. Lond., 27, p. 371, 1859—Juquila, Oaxaca, Mexico (type in coll. P. L. Sclater, now in British Museum); idem, Cat. Coll. Amer. Bds., p. 20, 1862—Oaxaca; Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 93, pl. 7, fig. 1, 1880—part, Oaxaca (Juquila); Sharpe, Cat. Bds. Brit. Mus., 6, p. 232, 1881—part, Oaxaca.

*Pheugopedius felix* Baird, Rev. Amer. Bds., 1, p. 136, 1864—part, Oaxaca (descr.).

<sup>1</sup>*Thryothorus albinucha subfulvus* Miller and Griscom: Differs strikingly from the typical race in having the entire under parts pale cinnamon in marked contrast with the white chin; the dorsal surface slightly darker; the black-and-white streaking on sides of neck more extensive, practically meeting across the back. Wing (adult male), 60; tail, 44; bill, 17½ (Miller and Griscom, l.c.).

*Pheugopedius felix felix* Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 536, 1904—southwestern Mexico, in states of Oaxaca, Guerrero, Michoacan, and Jalisco (monog.).

*Thryothorus ruficeps* (Lafresnaye MS.) Ridgway, Proc. Bost. Soc. N. H., 23, p. 387, 1887—"Brazil," errore,=Mexico (type now in Museum of Comparative Zoology, Cambridge, Mass.; cf. Bangs, Bull. Mus. Comp. Zool., 70, p. 317, 1930).

*Range*.—Southwestern Mexico, in states of Oaxaca (Juquila), Guerrero, Michoacan, and Jalisco.

2: Mexico (Iguala, Guerrero, 1; Tuxpan, Jalisco, 1).

***Thryothorus felix grandis* Nelson.<sup>1</sup> MORELOS WREN.**

*Thryothorus felix grandis* Nelson, Auk, 17, p. 269, 1900—Yautepec, Morelos (type in U. S. National Museum).

*Pheugopedius felix grandis* Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 537, 1904—Morelos (monog.).

*Range*.—South-central Mexico, in State of Morelos (Yautepec and Puente de Ixtla).

**\**Thryothorus felix pallidus* Nelson.<sup>2</sup> DURANGO WREN.**

*Thryothorus felix pallidus* Nelson, Proc. Biol. Soc. Wash., 13, p. 29, 1899—Chacala, Durango (type in U. S. National Museum).

*Pheugopedius felix* (not *Thryothorus felix* Selater) Baird, Rev. Amer. Bds., 1, p. 136, 1864—part, Mazatlan.

*Thryothorus felix* Lawrence, Mem. Bost. Soc. N. H., 2, p. 268, 1874—part, Mazatlan; Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 93, 1880—part, Mazatlan; Sharpe, Cat. Bds. Brit. Mus., 6, p. 232, 1881—part, Mazatlan.

*Pheugopedius felix pallidus* Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 538, 1904—western Mexico, in states of Sinaloa, Durango, Nayarit, and Michoacan (monog.); Miller, Bull. Amer. Mus. N. H., 21, p. 368, 1905—Escuinapa and Juanna Gomez River, Sinaloa; McLellan, Proc. Calif. Acad. Sci., (4), 16, p. 39, 1927—San Blas, Nayarit.

*Range*.—Western Mexico, in states of Sinaloa (Mazatlan, Escuinapa, Juanna Gomez River), Durango (Chacala), Nayarit, and northwestern Michoacan (Los Reyes).

1: Mexico, Nayarit (San Blas, 1).

**\**Thryothorus felix sonora* (van Rossem).<sup>3</sup> SONORA WREN.**

<sup>1</sup> We are not acquainted with this race.

<sup>2</sup> Doubtfully separable. No attempt at defining the characters and ranges of the three races from western and southern Mexico can at present be made owing to the lack of an adequate series from the type locality of *T. felix*.

<sup>3</sup> *Thryothorus felix sonora* (van Rossem): "Nearest to *T. f. pallidus*, but coloration decidedly paler and more ashy; back between hair brown and drab instead of light olive-brown; lateral under parts grayish cinnamon-buff instead of pale clay color; chin and throat pure white, in abrupt contrast with the buffy pectoral area." (van Rossem, l.c.).

*Pheugopedius felix sonorae* van Rossem, Trans. San Diego Soc. N. H., 6, p. 208, 1930—Guircoba, southern Sonora (type in coll. of Donald R. Dickey); idem, l.c., p. 272, 1931—Chinobampo and Guircoba.

*Range*.—Northwestern Mexico, in extreme southern Sonora (Guircoba, Chinobampo).

***Thryothorus felix lawrencii* Ridgway. LAWRENCE'S WREN.**

*Thryothorus felix*  $\beta$  *lawrencii* Ridgway, Bull. Nutt. Orn. Cl., 3, p. 10, Jan., 1878—Tres Marias Islands, Mexico (type in U. S. National Museum); Salvin, Ibis, 1878, p. 196 (crit.).

*Thryothorus lawrencii* Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 93, 1880—Tres Marias Islands; Sharpe, Cat. Bds. Brit. Mus., 6, p. 232, 1881—Tres Marias Islands; Nelson, North Amer. Fauna, 14, p. 57, 1899—Maria Madre Island (crit., habits).

*Pheugopedius felix lawrencii* Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 538, 1904—Maria Madre Island, Tres Marias (monog.); McLellan, Proc. Calif. Acad. Sci., (4), 15, p. 317, 1926—Maria Madre; idem, l.c., (4), 16, p. 39, 1927—Maria Madre.

*Thryothorus felix* (not of Sclater) Grayson, Proc. Bost. Soc. N. H., 14, p. 278, 1872—Tres Marias (habits); Lawrence, Mem. Bost. Soc. N. H., 2, p. 268, 1874—part, Tres Marias.

*Range*.—Maria Madre Island, Tres Marias group, western Mexico.

***Thryothorus felix magdalenae* Nelson. MAGDALENA ISLAND WREN.**

*Thryothorus lawrencii magdalenae* Nelson, Proc. Biol. Soc. Wash., 12, p. 11, 1898—Maria Magdalena Island, Tres Marias group (type in U. S. National Museum); idem, North Amer. Fauna, 14, p. 58, 1899—Maria Magdalena Island (habits).

*Pheugopedius felix magdalenae* Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 539, 1904—Maria Magdalena Island (monog.).

*Range*.—Maria Magdalena Island, Tres Marias group, western Mexico.

**\**Thryothorus rutilus*<sup>1</sup> *microstictus* (Griscom).<sup>2</sup> SMALL-SPOTTED WREN.**

*Pheugopedius maculipectus microstictus* Griscom, Proc. New Engl. Zool. Cl., 12, p. 5, 1930—Santa Leonor, Tamaulipas, Mexico (type in Museum of Comparative Zoology, Cambridge, Mass.).

<sup>1</sup> The reasons for adopting *rutilus* as specific name are explained under *T. r. paucimaculatus*.

<sup>2</sup> *Thryothorus rutilus microstictus* (Griscom): Nearest to *T. r. maculipectus*, but much less rufescent above; median tail feathers generally with narrower blackish bars; black spotting below smaller and less numerous; flanks tawny-olive or buffy brown rather than tawny-brown. Size about the same.

*Thryothorus maculipectus* (not of Lafresnaye) Richmond, Proc. U. S. Nat. Mus., 18, p. 632, 1896—Alta Mira, Tamaulipas.

*Pheugopedius maculipectus maculipectus* Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 534, 1904—part, Tamaulipas (Alta Mira); Phillips, Auk, 28, p. 81, 1911—Guiaves, Rio Cruz, and Santa Leonor, Tamaulipas.

*Range*.—Eastern Mexico, in southern Tamaulipas (Guiaves, Rio Cruz, Santa Leonor, Alta Mira, Tampico).

2: Mexico (Tampico, Tamaulipas, 2).

**\*Thryothorus rutilus maculipectus Lafresnaye. SPOTTED-BREASTED WREN.**

*Thryothorus maculipectus* Lafresnaye, Rev. Zool., 8, p. 337, 1845—"Mexico" (type in coll. Lafresnaye, now in Museum of Comparative Zoology, Cambridge, Mass.; cf. Bangs, Bull. Mus. Comp. Zool., 70, p. 317, 1930—probably from Vera Cruz).

*Thryothorus maculipectus* Sclater, Proc. Zool. Soc. Lond., 24, p. 290, 1856—Cordoba, Vera Cruz; idem, l.c., 27, p. 363, 1859—Jalapa, Vera Cruz; idem, l.c., p. 372, 1859—Teotalcingo, Oaxaca; idem, Cat. Coll. Amer. Bds., p. 21, 1862—Orizaba, Vera Cruz; Lawrence, Bull. U. S. Nat. Mus., 4, p. 13, 1876—Guichicovi, Oaxaca; Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 92, 1880—part, Mexico (Cordoba, Orizaba, Jalapa, Teotalcingo, Guichicovi); Sharpe, Cat. Bds. Brit. Mus., 6, p. 237, 1881—part, Mexico; Chapman, Bull. Amer. Mus. N. H., 10, p. 23, 1898—Jalapa (song).

*Pheugopedius maculipectus* Baird, Rev. Amer. Bds., 1, p. 135, 1864—part, Mexico; Sumichrast, Mem. Bost. Soc. N. H., 1, p. 545, 1869—hot and temperate regions of Vera Cruz, up to Orizaba.

*Pheugopedius maculipectus maculipectus* Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 534, 1904—part, in states of Vera Cruz, Puebla, and Oaxaca (monog.); Bangs and Peters, Bull. Mus. Comp. Zool., 67, p. 480, 1927—Presidio and Motzorongo, Oaxaca; Griscom, Proc. New Engl. Zool. Cl., 12, p. 5, 1930—states of Vera Cruz, Puebla, and Oaxaca (crit.).

*Range*.—Southeastern Mexico, in states of Vera Cruz and Puebla (Metlatoyuca), and in adjacent parts of Oaxaca (Teotalcingo).

4: Mexico, Vera Cruz (Misantla, 2; Vega del Casadero, 2).

**\*Thryothorus rutilus canobrunneus Ridgway. YUCATAN SPOTTED-BREASTED WREN.**

*Thryothorus maculipectus canobrunneus* Ridgway, Man. N. Amer. Bds., p. 552, 1887—Temax, Yucatan (type in U. S. National Museum); Chapman, Bull. Amer. Mus. N. H., 8, p. 276, 1896—Chichen Itza, Yucatan (song).

*Pheugopedius maculipectus canobrunneus* Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 536, 1904—Yucatan, Campeche, and northern British Honduras (monog.); Cole, Bull. Mus. Comp. Zool., 50, p. 135, 1906—Chichen Itza, Yucatan; Griscom, Amer. Mus. Nov., 235, p. 15, 1926—eastern Yucatan; idem, Proc. New Engl. Zool. Cl., 12, p. 6, 1930—Yucatan Peninsula (crit.).



*Thryothorus maculipectus* (not of Lafresnaye) Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 92, 1880—part, British Honduras (Corozal).

*Pheugopedius maculipectus maculipectus* Peters, Auk, 30, p. 377, 1913—Xcopen and Camp Mengel, Quintana Roo.

*Pheugopedius maculipectus* Bangs and Peck, Proc. Biol. Soc. Wash., 21, p. 45, 1908—Toledo and Manatee districts, British Honduras (crit.).

*Range*.—Yucatan Peninsula, in states of Yucatan, Campeche, and Quintana Roo, eastern British Honduras.<sup>1</sup>

1: British Honduras (Orange Walk district, 1).

**\*Thryothorus rutilus umbrinus** Ridgway. GUATEMALAN SPOTTED-BREASTED WREN.

*Thryothorus maculipectus umbrinus* Ridgway, Man. N. Amer. Bds., p. 552, 1887—Guatemala=Vera Paz (type in U. S. National Museum).

*Thryothorus maculipectus* (not of Lafresnaye) Sclater and Salvin, Ibis, 1860, p. 30—Vera Paz, Guatemala; Boucard, Ann. Soc. Linn. Lyon, (n.s.), 25, p. 39, 1878—Guatemala; Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 92, 1880—part, Guatemala (Vera Paz, Choctum, Cahabón, Savanna Grande); Sharpe, Cat. Bds. Brit. Mus., 6, p. 237, 1881—part, Vera Paz, Guatemala.

*Pheugopedius maculipectus* Baird, Rev. Amer. Bds., 1, p. 135, 1864—part, Cahabón, Vera Paz, Guatemala.

*Pheugopedius maculipectus maculipectus* Austin, Bull. Mus. Comp. Zool., 69, p. 385, 1929—Mountain Cow, Cayo district, British Honduras (crit.).

*Pheugopedius maculipectus umbrinus* Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 535, 1904—part, Tabasco, Guatemala (monog.); Griscom, Proc. New Engl. Zool. Cl., 12, p. 6, 1930—northern and eastern Guatemala and western British Honduras (crit.).

*Pheugopedius maculatus* (sic) *umbrinus* Dearborn, Field Mus. Nat. Hist., Orn. Ser., 1, p. 133, 1907—part, Izabel and Los Amates, Guatemala.

*Range*.—Extreme southeastern Mexico, in State of Tabasco (Frontera, Teapa), northern and eastern Guatemala, and western British Honduras (Toledo and Cayo districts).<sup>2</sup>

6: Guatemala (Vera Paz, 3; Izabel, 1; Los Amates, 2).

**\*Thryothorus rutilus varians** (Griscom).<sup>3</sup> PACIFIC SPOTTED-BREASTED WREN.

<sup>1</sup> Birds from British Honduras (and southern Quintana Roo, according to Griscom) are intermediate between *canobrunneus*, as represented by Yucatan specimens, and *umbrinus*, but as a whole seem to be nearer to the former.

<sup>2</sup> According to Griscom (l.c.), specimens from Tabasco form the transition to typical *maculipectus*.

<sup>3</sup> *Thryothorus rutilus varians* (Griscom): "Closely resembling *T. r. umbrinus*, but minutely larger; much paler and duller, most obviously on the pileum and wings." (Griscom, l.c.).

The characters are not appreciable in the two specimens before me. If anything, they are more deeply colored above with the crown more intensely rufous.

*Phlegopedius maculipectus varians* Griscom, Proc. New Engl. Zool. Cl., 12, p. 7, 1930—San José, Guatemala (type in Dwight Collection, now in the American Museum of Natural History, New York).

*Tryothorus* [sic] *maculispectus* [sic] (not of Lafresnaye) Lantz, Trans. Kansas Acad. Sci., 16, p. 224, 1899—Naranjo, Guatemala.

*Phlegopedius maculipectus umbrinus* Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 535, 1904—part, Chiapas (Huehuetan).

*Phlegopedius maculatus umbrinus* Dearborn, Field Mus. Nat. Hist., Orn. Ser., 1, p. 133, 1907—part, Patulul and San José, Guatemala.

**Range.**—Pacific side of Guatemala below 2,500 feet, and adjoining section of Chiapas, southeastern Mexico.

2: Guatemala (San José, Escuintla, 1; Patulul, Solola, 1).

**\*Thryothorus rutilus petersi** (Griscom).<sup>1</sup> HONDURAS SPOTTED-BREASTED WREN.

*Phlegopedius maculipectus petersi* Griscom, Proc. New Engl. Zool. Cl., 12, p. 7, 1930—Lancetilla, eastern Honduras (type in Museum of Comparative Zoology, Cambridge, Mass.).

*Thryothorus maculipectus* (not of Lafresnaye) Sclater and Salvin, Proc. Zool. Soc. Lond., 1870, p. 836—San Pedro, Honduras; Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 92, 1880—part, Honduras (San Pedro); Sharpe, Cat. Bds. Brit. Mus., 6, p. 237, 1881—part, Honduras.

*Thryothorus maculipectus umbrinus* (not of Ridgway, 1887) Ridgway, Proc. U. S. Nat. Mus., 10, pp. 579, 585, 1888—Trujillo and Segovia River, Honduras; Bangs, Bull. Mus. Comp. Zool., 39, p. 152, 1903—Ceiba and Yaruca, Honduras.

*Phlegopedius maculipectus umbrinus* Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 535, 1904—part, Honduras (San Pedro, San Pedro Sula, Trujillo, Segovia River, Santa Ana, Yaruca, Ceiba); Peters, Bull. Mus. Comp. Zool., 69, p. 458, 1929—Lancetilla, Honduras.

**Range.**—Northern Honduras, west to the Chamelecon River.

1: Honduras (Chamelecon River, 1).

**\*Thryothorus rutilus tobagensis** (Hellmayr).<sup>2</sup> TOBAGO RUFOUS-BREASTED WREN.

*Phlegopedius rutilus tobagensis* Hellmayr, Anz. Orn. Ges. Bay., 1, No. 4, p. 27, 1921—Man o' War Bay, Tobago (type in Munich Museum).

*Thryothorus striolatus* (not *Campylorhynchus striolatus* Spix) Jardine, Ann. Mag. Nat. Hist., 19, p. 82, 1847—Tobago.

<sup>1</sup>*Thryothorus rutilus petersi* (Griscom) differs from all other races of the *maculipectus* type by stronger, basally thicker bill and decidedly more russet upper parts, including the tail bands.

<sup>2</sup>*Thryothorus rutilus tobagensis* (Hellmayr): Similar to *T. r. rutilus*, but with longer wings and stronger bill; chest slightly duller ochraceous-tawny and whitish abdominal area more restricted. Wing, 64–66, (female) 61–63; tail, 51–53, (female) 50–51; bill, 17½–19.

**Material examined.**—Fourteen specimens, adult and young, from Tobago.

*Thryothorus rutilus* (not of Vieillot) Sclater, Cat. Coll. Amer. Bds., p. 21, 1862—part, spec. b, Tobago; Cory, Auk, 10, p. 220, 1893—Tobago; Dalmás, Mém. Soc. Zool. France, 13, p. 133, 1900—Tobago.

**Range.**—Island of Tobago, British West Indies.

6: Tobago Island.

**\*Thryothorus rutilus rutilus Vieillot. RUFOUS-BREASTED WREN.**

*Thryothorus rutilus* Vieillot, Nouv. Dict. Hist. Nat., nouv. éd., 34, p. 55, 1819—"l'Amérique septentrionale," errore,=Trinidad;<sup>1</sup> Burmeister, Syst. Uebers. Th. Bras., 3, p. 134, 1856—"northern Brazil, near Pará and Bahia," errore; Sclater, Cat. Coll. Amer. Bds., p. 21, 1862—part, spec. a, Trinidad; Taylor, Ibis, 1864, p. 81—Trinidad; Sclater and Salvin, Proc. Zool. Soc. Lond., 1868, p. 166—Caracas; idem, l.c., p. 626—San Esteban, Venezuela; Sharpe, Cat. Bds. Brit. Mus., 6, p. 238, 1881—"Guiana," Venezuela, and Trinidad; Chapman, Bull. Amer. Mus. N. H., 6, p. 23, 1894—Princetown, Trinidad; Phelps, Auk, 14, p. 363, 1897—Cumanacoa and San Antonio, Sucre, Venezuela; Robinson and Richmond, Proc. U. S. Nat. Mus., 18, p. 685, 1896—La Guaira, Venezuela; idem, l.c., 24, p. 177, 1901—La Guaira; Hellmayr, Nov. Zool., 13, p. 6, 1906—Chaguaramas, Caparo, Laventille, Pointe Gourde, Valencia, and Seelet, Trinidad; Cherrie, Sci. Bull., Mus. Brookl. Inst., 1, p. 187, 1906—Aripo, Trinidad.

*Troglodytes rutilus* Léotaud, Ois. Trinidad, p. 173, 1866—Trinidad.

*Pheugopedius rutilus* Cherrie, Sci. Bull., Mus. Brookl. Inst., 1, p. 355, 1908—Carenage and Aripo, Trinidad.

*Thryothorus rutilus rutilus* Hellmayr and Seilern, Arch. Naturg., 78, A, Heft 5, p. 42, 1912—Las Quiguas and Cumbre Chiquita, Carabobo (crit., range).

*Pheugopedius rutilus rutilus* Hellmayr, Arch. Naturg., 90, A, Heft 2, p. 151, 1924—Loma Redonda, near Caracas, Venezuela (crit.).

*Troglodytes gularis* (Cuvier MS.) Lesson, Traité d'Orn., p. 399, end of 1830—"la Trinité" (nomen nudum); Pucheran, Arch. Mus. Paris, 7, p. 338, 1855 (types in Paris Museum; crit., descr.).

*T[hyothorus] rutilans* Swainson, Orn. Draw., Part 2, pl. 15, 1834—no locality given.

**Range.**—Tropical zone of the Island of Trinidad and of the Caribbean provinces of Venezuela, west to Lara (vicinity of Tocuyo).<sup>2</sup>

<sup>1</sup> As suggested by Hellmayr, Nov. Zool., 13, p. 6, 1906.

<sup>2</sup> Birds from Venezuela are above on average slightly duller, more of a grayish brown, than those from Trinidad. An adult female from Cumbre Chiquita, Carabobo, with some scattered dusky apical fringes in the rufous pectoral area marks a decided step in the direction of *T. r. laetus*, of Santa Marta. As to the western limit of its range, I can trace this form to the vicinity of Tocuyo, Lara, whence A. Mocquerys sent specimens to the Tring Museum. The locality "Ejido, Mérida," attached to one of his examples, is open to doubt.

**Material examined.**—Trinidad: Aripo (alt. 1,800 ft.), 1; Caparo, 12; Chaguaramas, 1.—Venezuela: mountains inland of Cumaná, Sucre, 6; Caracas, 2; Macuto, Caracas, 5; Loma Redonda, near Caracas, 1; Las Quiguas, Carabobo, 3; Cumbre Chiquita, Carabobo, 3; near Bucarito, Tocuyo, Lara, 2.

8: Trinidad (Chaguaramas, 1); Venezuela (Caracas, 2; Macuto, Caracas, 5).

**Thryothorus rutilus interior** (Todd).<sup>1</sup> **LEBRIJA RIVER WREN.**

*Pheugopedius rutilus interior* Todd, Proc. Biol. Soc. Wash., 45, p. 9, 1932—

El Cauca, Santander, Colombia (type in Carnegie Museum, Pittsburgh).

*Range.*—Tropical zone of the valley of the Rio Lebrija, Magdalena drainage, west of Ocaña, in State of Santander, eastern Colombia (El Cauca and La Palmita).

**Thryothorus rutilus intensus** (Todd).<sup>2</sup> **MARACAIBO WREN.**

*Pheugopedius rutilus intensus* Todd, Proc. Biol. Soc. Wash., 45, p. 10, 1932

—Azulita, Venezuela (type in Carnegie Museum, Pittsburgh).

*Range.*—Tropical zone of the heavily forested region south of Lake Maracaibo, in State of Zulia, western Venezuela (Motatan and La Azulita).

**\*Thryothorus rutilus hyospodius** Salvin and Godman.<sup>3</sup> **GRAY-BELLIED WREN.**

*Thryothorus hyospodius* Salvin and Godman, Biol. Centr.-Amer., Aves, 1,

p. 92, 1880—"Colombia"—Bogotá collections (type now in British Museum); Sharpe, Cat. Bds. Brit. Mus., 6, p. 239, 1881—Colombia.

<sup>1</sup> *Thryothorus rutilus interior* (Todd): "Similar to *T. r. rutilus*, of Trinidad and the coast region of Venezuela, but with the general coloration of the under parts paler, the breast being yellow ochre, and the sides and flanks dull buffy citrine or very pale brownish olive." (Todd, l.c.).

Eleven specimens from the Rio Lebrija, a tributary of the middle Magdalena, are, according to Mr. Todd, uniformly paler below than skins of true *rutilus* from Venezuela taken at the same season. The buffy rufous area of the breast is not only paler, but is also more restricted, resembling thus *T. r. hyospodius*, from which, however, this recently separated form differs in its more buffy, less grayish sides and flanks, and in its whiter, less grayish-tinged abdomen medially. From *T. r. laetus*, which is equally pale, it differs in having the breast unspotted, except for one specimen, which shows so much spotting that it could readily be referred to the Santa Marta race.

<sup>2</sup> *Thryothorus rutilus intensus* (Todd): "Similar to *T. r. rutilus*, but with the under parts in general more richly colored, and with a strong tendency to spotting." (Todd, l.c.).

Twelve specimens from the Maracaibo basin, upon which this form is based, are stated by the describer to have the breast decidedly brighter, raw sienna rather than antique brown with more or less dusky spotting, and the sides and flanks correspondingly richer brown. The richness of coloration serves to distinguish it as well from *T. r. laetus*, which is a pale form, although in their spotted under parts the two forms resemble each other.

<sup>3</sup> *Thryothorus rutilus hyospodius* Salvin and Godman: Very close to *T. r. rutilus*, but the tawny color restricted to the chest; the sides and flanks much duller buffy brown, sometimes suffused with grayish brown; middle of breast and abdomen more or less shaded with grayish; upper parts much more rufescent, the back nearly Brussels brown instead of dull hair brown, the pileum deeper rufous.

Two specimens from Tachira, while similar underneath, form the transition to the typical race by the coloration of the upper surface.

*Material examined.*—Colombia: "Bogotá," 4; Villavicencio, 3.—Venezuela: Colón, Tachira, 2.

*Pheugopedius hypospodius* Chapman, Bull. Amer. Mus. N. H., 36, p. 517, 1917—Villavicencio, Buena Vista, and Susumuco, eastern slope of eastern Andes, Colombia.

**Range.**—Tropical zone of eastern Colombia (eastern slope of eastern Andes) and extreme western Venezuela (State of Tachira).

1: Venezuela (Colón, Tachira, 1).

***Thryothorus rutilus laetus* Bangs.<sup>1</sup> SANTA MARTA WREN.**

*Thryothorus laetus* Bangs, Proc. Biol. Soc. Wash., 12, p. 160, 1898—Pueblo Viejo, Santa Marta region, Colombia (type now in Museum of Comparative Zoology, Cambridge, Mass.; cf. Bangs, Bull. Mus. Comp. Zool., 70, p. 317, 1930); idem, l.c., 12, p. 180, 1898—Palomina (descr. juv.); Allen, Bull. Amer. Mus. N. H., 13, p. 179, 1900—Onaca, Cacagualito, and Minca, Santa Marta (plumages).

*Pheugopedius laetus* Todd and Carriker, Ann. Carnegie Mus., 14, p. 419, 1922—La Concepción, Bonda, Minca, Agua Dulce, Pueblo Viejo, and La Tigrera (crit.; habits).

*Pheugopedius rutilus laetus* Hellmayr, Arch. Naturg., 90, A, Heft 2, p. 152, 1924—Santa Marta region (crit.).

**Range.**—Tropical zone of the Santa Marta region in northern Colombia.

**\**Thryothorus rutilus hyperythrus* Salvin and Godman. TAWNY-BELLIED WREN.**

*Thryothorus hyperythrus* Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 91, 1880—Paraiso Station, Panama Railroad, Panama (type now in British Museum); Sharpe, Cat. Bds. Brit. Mus., 6, p. 239, 1881—Paraiso and Santiago de Veragua, Panama; Ridgway, Proc. U. S. Nat. Mus., 4, p. 334, 1881—Carrillos de Alajuela, Costa Rica; Zeledón, Anal. Mus. Nac. Costa Rica, 1, p. 105, 1887—La Palma de Puntarenas, Costa Rica; Cherrie, Proc. U. S. Nat. Mus., 14, p. 521, 1891—Pacific side of Costa Rica (crit.); idem, Anal. Inst. Fis.-Geog. Mus. Nac. Costa Rica, 4, p. 135, 1893—Boruca, Térraba, and Buenos Aires, Costa Rica; Bangs, Proc. New Engl. Zool. Cl., 2, p. 53, 1902—Boquete, Chiriquí.

*Thryothorus rutilus hyperythrus* Ridgway, Proc. U. S. Nat. Mus., 5, p. 390, 1882—La Palma de Nicoya, Costa Rica.

*Pheugopedius hyperythrus* Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 533, 1904—Isthmus of Panama, Veragua, Chiriquí, and western Costa Rica (monog.); Thayer and Bangs, Bull. Mus. Comp. Zool., 46, p. 219, 1906—savanna of Panama; Bangs, Auk, 24, p. 304, 1907—Boruca and Paso

<sup>1</sup> *Thryothorus rutilus laetus* Bangs: Resembling *T. r. rutilus* in the possession of an extensive white abdominal area, but differing in paler, more ochraceous-tawny color of breast and sides and in having the chest marked with blackish sub-apical spots or bars. The tone of the ochraceous area underneath is about the same as in *T. r. hyperythrus*, from which the Santa Marta form is, however, easily distinguished by the blackish pectoral spots and the white abdominal area. Wing (adult males), 57–62; tail, 50–53; bill, 17–18.

**Material examined.**—Colombia: Onaca, 1; Minca, 2; Palomina, 1.

Real, Costa Rica; Carriker, Ann. Carnegie Mus., 6, p. 767, 1910—Tenorio, Buenos Aires, Bebedero, and Boruca, Costa Rica (habits); Hallinan, Auk, 41, p. 325, 1924—Rio Algorrobo, Panama.

*Thryothorus rutilus* (not of Vieillot) Lawrence, Ann. Lyc. Nat. Hist. N. Y., 7, p. 320, 1861—Panama Railroad; Salvin, Proc. Zool. Soc. Lond., 1867, p. 134—Santa Fé and Santiago de Veragua, Veragua; idem, l.c., 1870, p. 181—Calovévora, Veragua, and Boquete and Bugaba, Chiriquí.

*Pheugopedius rutilus* Baird, Rev. Amer. Bds., 1, p. 135, 1864—Panama Railroad (excl. habitat "northern Brazil" and Venezuela).

**Range.**—Tropical zone of Panama (from the Canal Zone westwards), Veragua, Chiriquí, and the Pacific side of Costa Rica.<sup>1</sup>

10: Costa Rica (Boruca, 3; Buenos Aires, 3; Las Cañas, 4).

**\**Thryothorus rutilus columbianus* (Chapman).<sup>2</sup> COLOMBIAN BANDED-BELLIED WREN.**

*Pheugopedius sclateri columbianus* Chapman, Amer. Mus. Nov., 138, p. 14, Oct., 1924—Miraflores, central Andes east of Palmira, Colombia (type in the American Museum of Natural History, New York, examined).

*Thryothorus sclateri* (not of Taczanowski) Sharpe, Cat. Bds. Brit. Mus., 6, p. 238, 1881—Colombia.

*Pheugopedius sclateri* Chapman, Bull. Amer. Mus. N. H., 36, p. 517, 1917—Miraflores, central Andes, and Enconosa, "near Bogotá," Colombia.

**Range.**—Southern Colombia (Miraflores, east of Palmira, upper Cauca Valley; also occurring in native "Bogotá" collections).

1: Colombia ("Bogotá," 1).

***Thryothorus rutilus sclateri* Taczanowski.<sup>3</sup> SCLATER'S BANDED-BELLIED WREN.**

<sup>1</sup> Five specimens from Chiriquí (Boquete) agree with a Costa Rican series. No material seen from the type locality (Panama Canal Zone).

<sup>2</sup> *Thryothorus rutilus columbianus* (Chapman): Similar to *T. r. sclateri* in having the under parts from the chin down to the anal region regularly barred with black and white, but much duller, less brownish, above. The back, wing coverts, and edges to the remiges are, instead of warm Dresden brown, dull brownish olive passing on the pileum into tawny olive, while the typical form has the crown much brighter, near buckthorn brown. The flanks are light brownish olive, less rufescent than in Peruvian birds. By its shorter bill, *T. r. columbianus* approaches *T. r. paucimaculatus*. Wing (adult male), 62; tail, 54; bill, 16–17.

The range of this form is very imperfectly known. The only exact locality on record is Miraflores, east of Palmira, on the west slope of the central Andes, in the upper Cauca Valley, on the borders of the Tropical and Subtropical zones. The specimens found in native "Bogotá" collections probably originated in the Magdalena Valley.

**Material examined.**—Colombia: "Bogotá," 5; "Enconosa," 1; Miraflores, Cauca, 1.

<sup>3</sup> *Thryothorus rutilus sclateri* Taczanowski and its two close allies, *T. r. columbianus* and *T. r. paucimaculatus*, agree with *T. rutilus* in proportions and in style of coloration, except that the under parts lack the ochraceous or tawny areas, the

*Thryothorus sclateri* Taczanowski, Proc. Zool. Soc. Lond., 1879, p. 222—Guajango, Rio Marañón, Peru (type lost, formerly in Warsaw Museum; cf. Sztolcman and Domaniewski, Ann. Zool. Mus. Pol. Hist. Nat., 6, p. 153, 1927); idem, l.c., 1880, p. 191—Callacate, Rio Chota, Marañón; idem, Orn. Pér., 1, p. 520, 1884—Guajango and Callacate, Peru.

*Pheugopedius sclateri* Bangs and Noble, Auk, 35, p. 457, 1918—Bellavista, Rio Marañón, Peru.

*Range*.—Tropical zone of northern Peru, in the valleys of the Rio Marañón and its tributaries.

### **Thryothorus rutilus paucimaculatus Sharpe.<sup>1</sup> SHARPE'S SPOTTED WREN.**

*Thryothorus paucimaculatus* Sharpe, Cat. Bds. Brit. Mus., 6, p. 238, 1881—Balzar, Ecuador (type now in British Museum); Berlepsch and Taczanowski, Proc. Zool. Soc. Lond., 1883, p. 540—Guayaquil.

*Pheugopedius paucimaculatus* Chapman, Bull. Amer. Mus. N. H., 55, p. 568, 1926—Chongoncito, Guayaquil, Duran, Rio Jubones, Portovelo, Punta Santa Ana, Las Piñas, Alamor, Cebollal, and Guainche, Ecuador, and Palambla, Dept. Piura, Peru.

*Range*.—Tropical zone of southwestern Ecuador, north to Prov. Guayas, and extreme northwestern Peru (Palambla, Dept. Piura).

black-and-white barring of the throat being carried down to the anal region. I have, therefore, no hesitation in associating the two "specific" groups in a single natural unit. Wing (four adult males), 62–65, (three females) 59–61; tail, 54–58, (female) 51–54; bill, 18–19.

*Material examined*.—Peru: Bellavista, Marañón Valley, 2; Santa Rosa, lower Marañón Valley, 1; Jaen, lower Marañón, 2; San Ignacio, 1; Perico, Rio Chinchipe, 2.

<sup>1</sup>*Thryothorus rutilus paucimaculatus* Sharpe: Nearly allied to *T. r. sclateri*, which it resembles in the decidedly rufescent upper parts (though the general tone above is on average slightly more olivaceous); but smaller, with slenderer, shorter bill; middle of the throat immaculate white (not banded with black and white); flanks more fulvescent, tawny-olive to olivaceous clay-color rather than buffy brown; black markings below confined to foreneck and breast and, instead of forming continuous regular bars, broken into short subapical transverse spots. Wing, 58–61, (female) 54–59; tail, 50–54, (female) 47–52; bill, 15½–16.

The extent of the black markings underneath is exceedingly variable, and certain densely spotted individuals, e.g. No. 167777, A.M.N.H., from Punta Santa Ana, approach *sclateri* very closely. The light tail bands are pure gray, whitish towards the edges of the feathers and on the lateral rectrices, exactly as in *sclateri*.

*T. r. paucimaculatus* bears a strong resemblance to the Central American *T. maculipectus*, which mainly differs by brownish or rufescent tail bands and deeper, more cinnamon-brown pileum. In the color of the flanks some specimens of typical *maculipectus* from Misantla are hardly different from the Ecuadorian form, and the black pectoral markings are sometimes quite similar. All of the divergencies are mere matters of degree, and I have consequently been led to include the races of the *maculipectus* series in the "formenkreis" *T. rutilus*, which thus ranges from eastern Mexico south to Ecuador and Peru, and east through northern Venezuela to Trinidad and Tobago.

*Material examined*.—Ecuador: Chongoncito, Guayas, 1; Chongon Hills, 1; Rio Jubones, Prov. del Oro, 1; Portovelo, Prov. del Oro, 3; Punta Santa Ana, Portovelo-Loja trail, Prov. del Oro, 1; Cebollal, Pacific slope, Prov. de Loja, 1.

Genus **THRYOMANES** Slater<sup>1</sup>

*Thryomanes* Slater, Cat. Coll. Amer. Bds., p. 22, 1862—type, by monotypy,  
*Troglodytes bewickii* Audubon.

**\*Thryomanes bewickii bewickii** (Audubon). BEWICK'S WREN.

*Troglodytes bewickii* Audubon, Orn. Biog., 1, p. 96, pl. 18, 1831—five miles from St. Francisville, Louisiana (type in U. S. National Museum).

*Thryomanes bewickii bewickii* Oberholser, Proc. U. S. Nat. Mus., 21, p. 423, 1898 (monog.); Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 552, 1904 (monog., full bibliog.).

*Range*.—Breeds chiefly in the Upper Austral zone from southeastern Nebraska, northern Illinois, southern Michigan, and central Pennsylvania south to central Arkansas, northern Mississippi, central Alabama, central Georgia, and the highlands of South Carolina; winters over practically its entire range south to the Gulf coast and Florida; casual in New Jersey, Ontario, and New Hampshire.

7: Illinois (Chicago, 1; Grand Chain, 1); Tennessee (Bellemeade, 1); South Carolina (Aiken, 2); Georgia (Augusta, 1); Florida (Mary Esther, 1).

**\*Thryomanes bewickii cryptus** Oberholser.<sup>2</sup> TEXAS WREN.

*Thryomanes bewickii cryptus* Oberholser, Proc. U. S. Nat. Mus., 21, p. 425, 1898—San Antonio, Texas (type in U. S. National Museum); Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 555, 1904 (monog., full bibliog.); Phillips, Auk, 28, p. 81, 1911—Matamoros, San Fernando, and Guaymas, Tamaulipas.

*Range*.—Breeds in the Austral zone from Kansas to Texas (except extreme southwestern part), Tamaulipas, and Nuevo Leon.

19: Texas (San Angelo, 1; Corpus Christi, 8; Cameron County, 1; San Antonio, 1; Waring, 1; Ingram, 3; Crystal City, 1; Fort Clark, 1; Kendall County, 1); Nuevo Leon (Rio Salado, 1).

**\*Thryomanes bewickii eremophilus** Oberholser.<sup>3</sup> DESERT WREN.

*Thryomanes bewickii eremophilus* Oberholser, Proc. U. S. Nat. Mus., 21, p. 427, 1898—Big Hatchet Mountains, Grant County, New Mexico (type in U. S. National Museum); Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 557, 1904 (monog., full bibliog.); Miller, Bull. Amer. Mus. N. H., 22, p. 181, 1906—northwestern Durango; van Rossem, Trans. San Diego Soc. N. H., 6, p. 272, 1931—Sonora localities.

<sup>1</sup> Doubtfully separable from *Thryothorus* Vieillot.

<sup>2</sup> *Thryomanes bewickii cryptus* Oberholser: Similar to *T. b. bewickii*, but larger; upper parts grayer and lower parts whiter.

<sup>3</sup> *Thryomanes bewickii eremophilus* Oberholser: Similar to *T. b. cryptus*, but much grayer above; under parts even more white; slightly larger, especially the bill.



*Range*.—Upper Austral zone from Colorado, southern Utah, southern Nevada, and extreme western Texas to Arizona, New Mexico, and southeastern California, south to Coahuila, Durango, and central Zacatecas.<sup>1</sup>

18: Colorado (Fort Lyon, 1; unspecified, 1); New Mexico (Deming, 1); Arizona (Phoenix, 1; Santa Rita Mountains, 1; Huachuca Mountains, 3; Chiricahua Mountains, 1; Paradise, 1; Camp Lowell, 1; Fort Verde, 1; Calabasas, 5); Chihuahua (thirty miles west of Miñaca, 1).

**\*Thryomanes bewickii calophonus** Oberholser.<sup>2</sup> SEATTLE WREN.

*Thryomanes bewickii calophonus* Oberholser, Proc. U. S. Nat. Mus., 21, p. 440, 1898—South Park, King County, Washington (type in U. S. National Museum); Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 566, 1904 (monog., full bibliog.); Brooks and Swarth, Pac. Coast Avifauna, 17, p. 113, 1925—southwestern British Columbia.

*Range*.—Transition zone from southern Vancouver Island and southern British Columbia south to Oregon.

6: Washington (Seattle, 1; Kirkland, 1); Oregon (Logan, 1; Tillamook, 2; Mulino, 1).

**\*Thryomanes bewickii marinensis** Grinnell.<sup>3</sup> NICASIO WREN

*Thryomanes bewickii marinensis* Grinnell, Univ. Calif. Pub. Zool., 5, p. 307, 1910—Nicasio, Marin County, California (type in Museum of Vertebrate Zoology, Berkeley).

*Thryomanes bewickii spilurus* (not of Vigors) Oberholser, Proc. U. S. Nat. Mus., 21, p. 438, 1898—part (monog.); Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 565, 1904—part (monog., full bibliog.).

*Range*.—Humid coast belt of southwestern Oregon and northern California south to Marin County.

7: California (Nicasio, 5; San Geronimo, 2).

**\*Thryomanes bewickii spilurus** (Vigors).<sup>4</sup> VIGORS'S WREN.

*Troglodytes spilurus* Vigors, Zool. Voyage "Blossom," p. 18, pl. 4, 1839—"California," probably near San Francisco (type apparently lost).

<sup>1</sup> An additional race, *T. b. niceae*, has recently been described by Sutton (Auk, 51, p. 217, 1934) from Kenton, Cimarron County, Oklahoma.

<sup>2</sup> *Thryomanes bewickii calophonus* Oberholser: Similar to *T. b. bewickii*, but upper parts rich brown (not rufescent); sides and flanks more extensively as well as more strongly tinged with brown; bill longer.

<sup>3</sup> *Thryomanes bewickii marinensis* Grinnell: Similar to *T. b. spilurus*, but color of back brighter brown ("vandyke brown"), and flanks strongly tinged with the same color.

<sup>4</sup> *Thryomanes bewickii spilurus* (Vigors): Similar to *T. b. calophonus*, but smaller, and color of upper parts and flanks less brownish, more grayish.

*Thryomanes bewickii spilurus* Oberholser, Proc. U. S. Nat. Mus., 21, p. 438, 1898—part (monog.); Ridgway, Bull. U. S. Nat. Mus., 50, p. 565, 1904—part (monog., full bibliog.); Grinnell, Pac. Coast Avifauna, 11, p. 159, 1915 (range).

*Range*.—Upper Austral and Transition zones of west-central California from San Francisco Bay to northern Monterey County.

14: California (Palo Alto, 5; Los Gatos, 4; Oakland, 1; Monterey, 4).

**\*Thryomanes bewickii drymoecus Oberholser.<sup>1</sup> SAN JOAQUIN WREN.**

*Thryomanes bewickii drymoecus* Oberholser, Proc. U. S. Nat. Mus., 21, p. 437, 1898—Baird, California (type in U. S. National Museum); Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 563, 1904 (monog., full bibliog.); Grinnell, Pac. Coast Avifauna, 11, p. 158, 1915—San Joaquin and Sacramento valleys, California.

*Range*.—Sacramento Valley and lower half of San Joaquin Valley, California, including the western slope of the Sierra Nevada, north to central-southern Oregon, and east to the Warner Mountains.

2: California (Clipper Gap, 2).

**\*Thryomanes bewickii correctus Grinnell.<sup>2</sup> SAN DIEGO WREN.**

*Thryomanes bewickii correctus* Grinnell, Condor, 30, p. 154, 1928—Pasadena, California (type in Museum of Vertebrate Zoology, Berkeley).

*Thryomanes bewickii charienturus* Oberholser, Proc. U. S. Nat. Mus., 21, p. 435, 1898—part, coast region of southern California; Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 561, 1904—part, coast region of southern California (monog., full bibliog.); Grinnell, Pac. Coast Avifauna, 11, p. 158, 1915—coast of southern California.

*Range*.—Coastal belt of California from the west side of the San Joaquin Valley, in San Benito and Monterey counties, south-east through the San Diegan district to near the Mexican boundary.

8: California (Pasadena, 1; San Bernardino, 1; San Fernando, 3; Mulberry, 1; San Sevaime Flats, 1; San Diego, 1).

**\*Thryomanes bewickii nesophilus Oberholser.<sup>3</sup> SANTA CRUZ ISLAND WREN.**

*Thryomanes bewickii nesophilus* Oberholser, Proc. U. S. Nat. Mus., 21, p. 442, 1898—Santa Cruz Island, California (type in U. S. National Museum);

<sup>1</sup> *Thryomanes bewickii drymoecus* Oberholser: Similar to *T. b. spilurus*, but larger and somewhat paler brown.

<sup>2</sup> *Thryomanes bewickii correctus* Grinnell: Similar to *T. b. drymoecus*, but upper parts decidedly lighter brown; light bars on tail paler; tail longer.

<sup>3</sup> *Thryomanes bewickii nesophilus* Oberholser: Similar to *T. b. spilurus*, but upper parts very much lighter brown; sides and flanks more extensively tinged with paler brown; barring on rectrices much more distinct; bill shorter.

Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 562, 1904 (monog., full bibliog.).

*Thryomanes bewickii charienturus* (not of Oberholser) Howell, Pac. Coast Avifauna, 12, p. 97, 1917, part—Santa Cruz and Santa Rosa Islands (crit.).

*Range*.—Islands of Santa Cruz and Santa Rosa, California.

1: California (Santa Rosa Island, 1).

***Thryomanes bewickii catalinae* Grinnell.<sup>1</sup> CATALINA ISLAND WREN.**

*Thryomanes bewickii catalinae* Grinnell, Univ. Calif. Pub. Zool., 5, p. 308, 1910—Avalon, Santa Catalina Island, California (type in Museum of Vertebrate Zoology, Berkeley).

*Thryomanes bewickii charienturus* (not of Oberholser) Howell, Pac. Coast Avifauna, 12, p. 97, 1917—part, Catalina Island (crit.).

*Range*.—Santa Catalina Island, California.

**\**Thryomanes bewickii leucophrys* (Anthony).<sup>2</sup> SAN CLEMENTE WREN.**

*Thryothorus leucophrys* Anthony, Auk, 12, p. 52, 1895—San Clemente Island, California (type now in Carnegie Museum; cf. Todd, Ann. Carnegie Mus., 18, p. 356, 1928).

*Thryomanes leucophrys* Howell, Pac. Coast Avifauna, 12, p. 98, 1917—San Clemente Island.

*Thryomanes bewickii leucophrys* Oberholser, Proc. U. S. Nat. Mus., 21, p. 443, 1898—San Clemente Island (monog.); Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 563, 1904—San Clemente Island (monog., full bibliog.).

*Range*.—San Clemente Island, California.

8: California (San Clemente Island, 8).

***Thryomanes bewickii charienturus* Oberholser.<sup>3</sup> SOOTY WREN.**

*Thryomanes bewickii charienturus* Oberholser, Proc. U. S. Nat. Mus., 21, p. 435, 1898—Nachoguero Valley, Lower California (type in U. S. National

<sup>1</sup> *Thryomanes bewickii catalinae* Grinnell: "Closely similar in color and general size to *T. b. charienturus* Oberholser, of the adjacent mainland [= *T. b. correctus* Grinnell], but averaging darker dorsally (more sepia and not so umber brown), and with heavier bill and conspicuously and constantly larger feet (longer toes and heavier tarsus); differs from *T. b. leucophrys* (Anthony), of San Clemente Island, in decidedly darker, less ashy coloration, and in much more heavily barred under tail coverts; differs from *T. b. nesophilus* Oberholser, of Santa Cruz Island, in duller, less rufescent, coloration, grayer flanks, longer bill, and generally larger size." (Grinnell, l.c.).

<sup>2</sup> *Thryomanes bewickii leucophrys* (Anthony): Similar to *T. b. nesophilus*, but coloration paler (grayer), and size larger.

<sup>3</sup> *Thryomanes bewickii charienturus* Oberholser: Similar to *T. b. drymoecus*, but upper parts less brown, tail longer, bill shorter, feet smaller (fide Ridgway). I have not seen this race.

Museum); Ridgway, Bull. U. S. Nat. Mus., 50, p. 561, 1904—part, northern Lower California (monog., full bibliog.); Grinnell, Univ. Calif. Pub. Zool., 32, p. 216, 1928—Lower California.

*Thryomanes bewickii carbonarius* Grinnell, Auk, 44, p. 72, 1927—San José, Lower California (type in Museum of Vertebrate Zoology, Berkeley).

*Range*.—Northwestern Lower California, south to latitude 30°.

***Thryomanes bewickii cerroensis* (Anthony).<sup>1</sup> CEDROS ISLAND WREN.**

*Thryothorus cerroensis* Anthony, Auk, 14, p. 166, 1897—Cerro [=Cedros] Island, Lower California (type now in Carnegie Museum; cf. Todd, Ann. Carnegie Mus., 18, p. 356, 1928).

*Thryomanes bewickii cerroensis* Oberholser, Proc. U. S. Nat. Mus., 21, p. 445, 1898—Cerro Island (monog.); Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 562, 1904—Cerro Island, Lower California (full bibliog.); Grinnell, Univ. Calif. Pub. Zool., 32, p. 216, 1928—north middle section of Lower California and Cedros Island.

*Range*.—Cedros Island, and locally on middle section of the peninsula of Lower California, latitude 25° to 30°.

**\**Thryomanes bewickii brevicauda* Ridgway.<sup>2</sup> GUADALUPE WREN.**

*Thryomanes brevicauda* Ridgway, Bull. Geol. Geog. Surv. Terr., 2, p. 186, 1876—Guadalupe Island, Lower California (type in U. S. National Museum); Grinnell, Univ. Calif. Pub. Zool., 32, p. 218, 1928—Guadalupe Island.

*Thryomanes brevicaudus* Oberholser, Proc. U. S. Nat. Mus., 21, p. 448, 1898—Guadalupe Island (monog.); Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 567, 1904—Guadalupe Island (monog., full bibliog.).

*Range*.—Guadalupe Island, Lower California (now probably extinct).

1: Lower California (Guadalupe Island, 1).

***Thryomanes bewickii murinus* (Hartlaub).<sup>3</sup> HARTLAUB'S WREN.**

*Thryothorus murinus* Hartlaub, Rev. Mag. Zool., (2), 4, p. 4, 1852—Rio Frio, Mexico (cotypes in Bremen and Hamburg museums; cf. Oberholser [ex Hartlaub, in litt.], Proc. U. S. Nat. Mus., 21, p. 432, 1898).

*Thryothorus bewickii murinus* Ridgway, Auk, 4, p. 349, 1887 (crit.).

<sup>1</sup> *Thryomanes bewickii cerroensis* (Anthony): "Differs from *T. leucophrys* in much shorter bill, less deeply gray flanks and darker upper surface." (Anthony, l.c.). I am not acquainted with this race.

<sup>2</sup> *Thryomanes bewickii brevicauda* Ridgway: Very similar to *T. b. correctus*, but much smaller, especially the tail; bill longer; tail less barred.

<sup>3</sup> *Thryomanes bewickii murinus* (Hartlaub): "Similar to *T. b. bairdi*, but decidedly larger; coloration of upper parts darker and browner, and under tail coverts more heavily barred." (Ridgway, l.c.).

*Thryomanes bewickii murinus* Oberholser, Proc. U. S. Nat. Mus., 21, p. 431, 1898—Hidalgo, Mexico, Tlaxcala, and northern Morelos, Mexico (monog.); Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 559, 1904—south-central Mexico (monog., full bibliog.).

*Range*.—South-central Mexico, in states of Hidalgo, Mexico, Morelos, Tlaxcala, and San Luis Potosi.

***Thryomanes bewickii bairdi* (Salvin and Godman).<sup>1</sup> BAIRD'S WREN.**

*Thryothorus bairdi* Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 95, 1880—Oaxaca, Mexico (type now in British Museum).

*Thryomanes bewickii bairdi* Oberholser, Proc. U. S. Nat. Mus., 21, p. 433, 1898—Oaxaca, southern Puebla, and southwestern Vera Cruz (monog.); Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 559, 1904—southeastern Mexico (monog., full bibliog.).

*Range*.—Southeastern Mexico, in states of Oaxaca, southwestern Vera Cruz, and southern Puebla.

***Thryomanes bewickii percnus* Oberholser.<sup>2</sup> JALISCO WREN.**

*Thryomanes bewickii percnus* Oberholser, Proc. U. S. Nat. Mus., 21, p. 429, 1898—Etzatlan, Jalisco, Mexico (type in U. S. National Museum); Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 560, 1904—western Mexico (monog., full bibliog.).

*Range*.—Western Mexico, in states of Jalisco and southern Zacatecas; accidental in Puebla.

***Thryomanes insularis* (Lawrence).<sup>3</sup> SOCORRO WREN.**

*Troglodytes insularis* (Baird MS.) Lawrence, Ann. Lyc. Nat. Hist. N. Y., 10, p. 3, 1871—Socorro Island, off western Mexico (type in U. S. National Museum).

*Thryomanes insularis* Oberholser, Proc. U. S. Nat. Mus., 21, p. 446, 1898—Socorro Island (monog.); Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 568, 1904—Socorro Island (monog., full bibliog.); McLellan, Proc. Calif. Acad. Sci., (4), 15, p. 317, 1926—Socorro Island.

<sup>1</sup> *Thryomanes bewickii bairdi* (Salvin and Godman): "Similar to *T. b. eremophilus*, but smaller, darker, and browner." (Ridgway, l.c.).

<sup>2</sup> *Thryomanes bewickii percnus* Oberholser: "Similar to *T. b. murinus*, but wing and bill much longer, tail and tarsus slightly shorter, and coloration averaging slightly darker." (Ridgway, l.c.).

<sup>3</sup> *Thryomanes insularis* (Lawrence): "Similar to *T. b. leucophrys*, but wings and tail shorter; brown rectrices barred on both webs, not broadly tipped with white; superciliaries much more restricted; under parts washed with ochraceous; crissum spotted, not barred; distinguishable at first sight." (Oberholser, l.c.).

Unfortunately, we have not been able to examine this species, whose pertinence to the genus *Thryomanes* does not seem to be established beyond doubt. The remarks by Chapman and Griscom (Bull. Amer. Mus. N. H., 50, p. 284, 1924) on its close similarity, notwithstanding certain slight structural differences, to the *Troglodytes musculus* group should receive careful consideration.

*Range*.—Socorro Island, Revillagigedo group, northwestern Mexico.

### Genus FERMINIA Barbour<sup>1</sup>

*Ferminia* Barbour, Proc. New Engl. Zool. Cl., 9, p. 74, Oct., 1926—type, by orig. desig., *Ferminia cervicalis* Barbour.

### *Ferminia cervicalis* Barbour.<sup>2</sup> CUBAN MARSH WREN.

*Ferminia cervicalis* Barbour, Proc. New Engl. Zool. Cl., 9, p. 74, Oct., 1926—Santo Tomas, peninsula of Zapata, Cuba (type in Museum of Comparative Zoology, Cambridge, Mass.); Bangs, Bull. Mus. Comp. Zool., 70, p. 315, 1930 (note on type).

*Range*.—Island of Cuba, Greater Antilles.

### Genus TROGLODYTES Vieillot<sup>3</sup>

*Troglodytes* Vieillot, Hist. Nat. Ois. Amér. Sept., 2, p. 52, "1807"—type, by subs. desig. (Baird, Pacif. R. R. Rep., 9, p. 367, 1858), *Troglodytes aedon* Vieillot.

*Nannus* Billberg, Syn. Faun. Scand., 1, (2), tab. A and p. 57, 1828—type, by monotypy, *Motacilla troglodytes* Linnaeus.

*Anorthura* Rennie, in Montague, Orn. Dict., ed. 2, p. 570, 1831—new name for *Troglodytes* Vieillot.

*Olbiorchilus* Oberholser, Auk, 19, p. 177, 1902—type, by orig. desig., *Motacilla troglodytes* Linnaeus.

*Paulomagus* Howe, Suppl. Bds. Rhode Island, p. 22, 1903—type, by orig. desig., *Troglodytes aedon* Vieillot.

<sup>1</sup>*Ferminia* Barbour: "Bill medium in length, compressed, almost straight, slightly shorter than head; rictal bristles obvious; the anterior feathers of forehead acuminate, with heavy stiffened rachides and ill-developed webs (somewhat recalling other birds of palustrine association, as some rails, or *Phacellodomus*); wing very short, weak, rounded; first and second primaries very short, third primary slightly shorter than the others, which are about equal in length; tail long and broad, the rectrices all distinctly broadened, conspicuously longer than wing; tarsus one and one-third times as long as exposed culmen; feet rather weak, toes rather long and slender, claws but little arched." (Barbour, l.c.).

<sup>2</sup>*Ferminia cervicalis* Barbour: "Above between olive-brown and buffy brown, top of head squamulate, back and rump heavily cross-barred with dusky; wings slightly paler, a little more reddish brown, regularly cross-barred with dusky, inner vanes of feathers unbarred; tail same color as back, but conspicuously and very irregularly cross-barred; sides of head more olivaceous than top of head, with scattered white feathers; throat, chest, and middle of under parts soiled white; sides olivaceous brown with a few cross-bars on the flanks; under tail coverts very long and heavily cross-barred; feet brown. Wing (male) 55–61, (female) 51; tail, 61–67, (female) 57; bill, 19–20, (female) 17½; tars., 21." (Barbour, l.c.).

This remarkable bird seems to be remotely allied to *Thryomanes*.

<sup>3</sup>The slight divergencies in shape of bill and relative length of tail of the species classified in *Nannus* (*Olbiorchilus*) appear to me too insignificant for generic separation, inasmuch as *T. brunneicollis* and *T. solstitialis* are exactly intermediate in characters.

**\*Troglodytes aedon aedon Vieillot. HOUSE WREN.**

*Troglodytes aedon* Vieillot, Hist. Nat. Ois. Amér. Sept., 2, p. 52, pl. 107, "1807"—North America (type in coll. of P. L. Vieillot, probably lost).

*Sylvia domestica* Wilson, Amer. Orn., 1, p. 129, pl. 8, fig. 3, 1808—Pennsylvania (type in Peale's Museum, apparently lost).

*Troglodytes americana* Audubon, Orn. Biog., 2, p. 452, 1834—Dennisville, Maine (type now in U. S. National Museum).

*Troglodytes sylvestris* Gambel, Proc. Acad. Nat. Sci. Phila., 3, p. 113, 1846—new name for *Troglodytes americana* Audubon.

*Troglodytes aedon aedon* Oberholser, Proc. U. S. Nat. Mus., 27, p. 201, 1904 (crit.); Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 579, 1904 (monog.).

**Range.**—Eastern United States and Canada, from Michigan, southern Ontario, Quebec, and New Brunswick south to Kentucky and Virginia; wintering in southern United States and (rarely) eastern Mexico.

20: Massachusetts (Cliftondale, 1); Connecticut (East Hartford, 1; New Haven, 1); New Jersey (Englewood, 1; East Orange, 1); Pennsylvania (Mount Home, 1); Ohio (Columbus, 1); Florida (West Jupiter, 7; Pilot Town, 1; Palm Beach, 1; Rosewood, 1; Miami, 1); Louisiana (Buras, 1; Chef Menteur, 1).

**\*Troglodytes aedon parkmanii Audubon. WESTERN HOUSE WREN.**

*Troglodytes parkmanii* Audubon, Orn. Biog., 5, p. 310, 1839—Columbia River = near Fort Vancouver, Washington (type now in Museum of Comparative Zoology, Cambridge, Mass.; cf. Bangs, Bull. Mus. Comp. Zool., 70, p. 317, 1930).

*Troglodytes aedon parkmanii* Oberholser, Proc. U. S. Nat. Mus., 27, p. 201, 1904 (crit., range); Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 582, 1904 (monog.); Miller, Bull. Amer. Mus. N. H., 21, p. 368, 1905—Escuinapa, Sinaloa; Phillips, Auk, 28, p. 81, 1911—Matamoros, Montelunga, San Fernando, Realito, and Galindo, Tamaulipas, Mexico; Bangs and Peters, Bull. Mus. Comp. Zool., 67, p. 480, 1927—Presidio, Vera Cruz, Mexico; Oberholser, Sci. Publ. Cleveland Mus. N. H., 1, p. 96, 1930—Arizona (crit.); van Rossem, Trans. San Diego Soc. N. H., 6, p. 272, 1931—Tecoripa, Obregón, Tésia, and Chinobampo, Sonora, Mexico.

*Troglodytes aedon* var. *aztecus* Baird, Rev. Amer. Bds., 1, p. 139, 1864—Jalapa, Vera Cruz, Mexico (type in U. S. National Museum).

*Troglodytes aedon marianae* Scott, Auk, 2, p. 351, 1885—Pima County, Arizona (types in coll. W. E. D. Scott, now in the American Museum of Natural History, New York).

**Range.**—Western Canada and western United States, from British Columbia, Alberta, Saskatchewan, Manitoba, and Wisconsin south to Lower California (San Pedro Mártir Mountains), Arizona,

western Texas, Missouri, and northwestern Kentucky; wintering from California and Texas south to southern Mexico (Jalisco, Guerrero, and Oaxaca).

57: California (Claremont, 1; Dulzura, 1; Mount Diablo, 1; Nicasio, 1; Oakland, 1; Lakeside, 1; Corona, 2; Big Bear Valley, 1); Arizona (Huachuca Mountains, 5; Fort Mohave, 1); New Mexico (Members, 1); Colorado (Sargents, 1; Fort Lyon, 4; Williams Range, 6); Texas (Gainesville, 1; Harlingen, 1; Laredo, 1); Michigan (Quinnesec, 1); Wisconsin (Beaver Dam, 12); Illinois (Ravinia, 2; Lake Forest, 2; Chicago, 2; Henry, 2; Galena, 1); Mexico, Chihuahua (thirty miles west of Miñaca, 1); Coahuila (Sabinas, 1); Tamaulipas (Tampico, 1; unspecified, 2).

**\*Troglodytes tanneri Townsend.<sup>1</sup> CLARION ISLAND WREN.**

*Troglodytes tanneri* Townsend, Proc. U. S. Nat. Mus., 13, p. 133, 1890—Clarion Island, Revillagigedo group, off western Mexico (type in U. S. National Museum); Anthony, Auk, 15, p. 318, 1898—Clarion Island (nest descr.); Oberholser, Proc. U. S. Nat. Mus., 27, p. 208, 1904—Clarion Island (crit.); Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 573, 1904—Clarion Island (monog.); McLellan, Proc. Calif. Acad. Sci., (4), 15, p. 316, 1926—Clarion Island (habits, molt, plumages).

*Range*.—Clarion Island, Revillagigedo group, western Mexico.  
1: Clarion Island.

**\*Troglodytes musculus grenadensis (Lawrence). GRENADA WREN.**

*Thryothorus grenadensis* Lawrence, Ann. N. Y. Acad. Sci., 1, p. 161, 1878—Grenada (type in U. S. National Museum); idem, Proc. U. S. Nat. Mus., 1, p. 268, 1878—Grenada (habits, nest); l.c., 1, p. 486, 1879—Grenada; Sharpe, Cat. Bds. Brit. Mus., 6, p. 228, 1881—Grenada (monog.); Cory, Auk, 3, p. 25, 1886—Grenada (monog.); Wells, Proc. U. S. Nat. Mus., 9, p. 611, 1886—Grenada (habits, nest, and eggs); Cory, Bds. W. Ind., p. 39, 1889—Grenada (monog.).

*Troglodytes grenadensis* Oberholser, Proc. U. S. Nat. Mus., 27, p. 210, 1904—Grenada (crit.); Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 592, 1904—Grenada (monog.); Clark, Proc. Bost. Soc. N. H., 32, p. 296, 1905—Grenada (song, nest, and eggs).

*Range*.—Island of Grenada, Lesser Antilles.

6: Grenada.

<sup>1</sup> *Troglodytes tanneri* Townsend looks like a gigantic edition of *T. musculus inquietus* with slightly paler under parts, but resembles *T. aedon* in proportion of tail. It may be only a highly specialized insular form of the North American House Wren.



**\*Troglodytes musculus musicus (Lawrence). ST. VINCENT WREN.**

*Thryothorus musicus* Lawrence, Ann. N. Y. Acad. Sci., 1, p. 148, 1878—St. Vincent (type in U. S. National Museum); idem, Proc. U. S. Nat. Mus., 1, p. 189, 1878—Souffrière, St. Vincent (habits, song, and nest); idem, l.c., p. 486, 1879—St. Vincent; Sharpe, Cat. Bds. Brit. Mus., 6, p. 223, 1881—St. Vincent; Cory, Auk, 3, p. 24, 1886—St. Vincent (descr.); idem, Ibis, 1886, p. 472—St. Vincent; idem, Bds. W. Ind., p. 38, 1889—St. Vincent (monog.).

*Troglodytes musculus* Oberholser, Proc. U. S. Nat. Mus., 27, p. 209, 1904—St. Vincent (crit.); Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 591, 1904—St. Vincent (monog.); Clark, Proc. Bost. Soc. N. H., 32, p. 296, 1905—St. Vincent (song, nest); Bond, Proc. Acad. Nat. Sci. Phila., 80, p. 538, 1928—St. Vincent.

*Range*.—Island of St. Vincent, Lesser Antilles.

8: St. Vincent.

**\*Troglodytes musculus mesoleucus (Sclater).<sup>1</sup> SANTA LUCIA WREN.**

*Thryothorus mesoleucus* Sclater, Proc. Zool. Soc. Lond., 1876, p. 14—Santa Lucia (type in coll. of P. L. Sclater, now in British Museum); Allen, Bull. Nutt. Orn. Cl., 5, p. 166, 1880—Santa Lucia; Sharpe, Cat. Bds. Brit. Mus., 6, p. 223, 1881—Santa Lucia; Cory, Auk, 3, p. 25, 1886—Santa Lucia (monog.); idem, Bds. W. Ind., p. 39, 1889—Santa Lucia (monog.); Sclater, Proc. Zool. Soc. Lond., 1889, p. 395—Santa Lucia.

*Troglodytes mesoleucus* Oberholser, Proc. U. S. Nat. Mus., 24, p. 209, 1904—Santa Lucia (crit.); Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 591, 1904—Santa Lucia (monog.); Bond, Proc. Acad. Nat. Sci. Phila., 80, p. 538, 1928—Santa Lucia (nearly extinct); idem, Auk, 49, p. 496, 1932—Le Marquis, Santa Lucia.

*Range*.—Island of Santa Lucia, Lesser Antilles.

6: Santa Lucia.

**\*Troglodytes musculus martinicensis (Sclater). MARTINIQUE WREN.**

*Thryothorus martinicensis* Sclater, Proc. Zool. Soc. Lond., 1866, p. 321—Martinique (cotypes in Paris Museum and coll. of P. L. Sclater, the latter now in British Museum); Lawrence, Proc. U. S. Nat. Mus., 1, pp. 352, 486, 1879—Martinique (habits); Sharpe, Cat. Bds. Brit. Mus., 6, p. 228, 1881—Martinique (monog.); Cory, Auk, 3, p. 23, 1886—Martinique (descr.); idem, l.c., 4, p. 95, 1887—Martinique; idem, Bds. W. Ind., p. 37, 1889—Martinique.

<sup>1</sup> The Santa Lucia Wren is closely similar to *T. m. beani*, of Cozumel Island, and at the same time connects the other West Indian wrens so completely with *T. m. tobagensis* that I have no hesitation in combining this whole group under the specific term *musculus*.

*Troglodytes martinicensis* Oberholser, Proc. U. S. Nat. Mus., 27, p. 209, 1904—Martinique (crit.); Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 593, 1904—Martinique (monog.).

Range.—Island of Martinique, Lesser Antilles.

7: Martinique.

**\*Troglodytes musculus rufescens (Lawrence). DOMINICAN WREN.**

*Thryothorus rufescens* Lawrence, Ann. N. Y. Acad. Sci., 1, p. 47, 1877—Dominica (type in U. S. National Museum); idem, Proc. U. S. Nat. Mus., 1, p. 54, 1878—Laudat, Dominica (habits, nest); idem, l.c., 1, p. 486, 1879—part, Dominica; Sharpe, Cat. Bds. Brit. Mus., 6, p. 228, 1881—Dominica (monog.); Cory, Auk, 3, p. 24, 1886—part, Dominica (descr.); idem, Bds. W. Ind., p. 38, 1889—part, Dominica (descr.); Sclater, Proc. Zool. Soc. Lond., 1889, p. 326—Dominica; Verrill, Trans. Conn. Acad. Sci., 8, p. 343, 1892—Dominica (crit.; nest and eggs); Nicoll, Ibis, 1904, p. 568—Dominica.

*Troglodytes rufescens* Oberholser, Proc. U. S. Nat. Mus., 27, p. 210, 1904—Dominica (crit.); Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 594, 1904—Dominica (monog.); Bond, Proc. Acad. Nat. Sci. Phila., 80, p. 538, 1928—Dominica (song).

Range.—Island of Dominica, Lesser Antilles.

2: Dominica.

**\*Troglodytes musculus guadeloupensis (Cory). GUADELOUPE WREN.**

*Thryothorus guadeloupensis* Cory, Auk, 3, p. 381, 1886—Grande Terre, Guadeloupe (type now in Field Museum); idem, Ibis, 1886, p. 474—Guadeloupe; idem, Auk, 5, p. 157, 1888—Grande Terre, Guadeloupe; idem, Bds. W. Ind., p. 286, 1889—Grande Terre, Guadeloupe (monog.).

*Thryothorus rufescens* (not of Lawrence, 1877) Lawrence, Proc. U. S. Nat. Mus., 1, p. 453, 1879—Guadeloupe; idem, l.c., 1, p. 486, 1879—part, Guadeloupe; Cory, Auk, 3, p. 24, 1886—part, Guadeloupe; idem, Bds. W. Ind., p. 38, 1889—part, Guadeloupe.

*Troglodytes rufescens* Oberholser, Proc. U. S. Nat. Mus., 27, p. 209, 1904—Guadeloupe (crit.); Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 595, 1904—Guadeloupe (monog.); Noble, Bull. Mus. Comp. Zool., 60, p. 392, 1916—Sainte Rose, Guadeloupe (song).

Range.—Islands of Guadeloupe and Grande Terre, Lesser Antilles.

10: Grande Terre, 1; Guadeloupe, 9.

**Troglodytes musculus beani Ridgway.<sup>1</sup> COZUMEL WREN.**

<sup>1</sup> *Troglodytes musculus beani* Ridgway, while quite different from *T. m. peninsularis*, of the Yucatan mainland, can hardly be told apart from *T. m. mesoleucus*, from Santa Lucia Island, by less rufescent flanks, sides of neck, and posterior upper parts. The similarity of these wrens, restricted to two widely separated islands, presents a remarkable case of parallel development.

*Troglodytes beani* Ridgway, Proc. Biol. Soc. Wash., 3, p. 21, 1885—Cozumel Island (type in U. S. National Museum); idem, Proc. U. S. Nat. Mus., 8, p. 563, 1885—Cozumel Island (full descr.); Salvin, Ibis, 1888, p. 245—Cozumel (crit.); Oberholser, Proc. U. S. Nat. Mus., 27, p. 208, 1904—Cozumel (crit.); Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 573, 1904—Cozumel (monog.); Griscom, Amer. Mus. Nov., 236, p. 11, 1926—Cozumel (habits, crit.).

*Range*.—Cozumel Island, off Yucatan.

2: Cozumel Island.

**\*Troglodytes musculus peninsularis Nelson.<sup>1</sup> MANGROVE WREN.**

*Troglodytes peninsularis* Nelson, Proc. Biol. Soc. Wash., 14, p. 174, 1901—Progreso, Yucatan (type in U. S. National Museum); Oberholser, Proc. U. S. Nat. Mus., 27, p. 201, 1904—Yucatan (crit.); Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 574, 1904—coast of Yucatan (monog.).

*Troglodytes musculus peninsularis* Chapman and Griscom, Bull. Amer. Mus. N. H., 50, p. 285, 1924—coastal zone of Mexico, from southern Tamaulipas (Rio Pilon, Manuel) to Yucatan (crit.).

*Range*.—Tropical Coastal zone of eastern Mexico from southern Tamaulipas (Rio Pilon, Manuel) to Yucatan (Progreso).

1: Yucatan (unspecified, 1).

**\*Troglodytes musculus intermedius Cabanis. COSTA RICA HOUSE WREN.**

*Troglodytes intermedius* Cabanis, Journ. Orn., 8, p. 407, 1860—San José, Costa Rica (type in Berlin Museum); Baird, Rev. Amer. Bds., 1, p. 142,

<sup>1</sup> *Troglodytes musculus peninsularis* Nelson: Differs from *T. m. beani* by much smaller (both shorter and slenderer) bill; much paler, more grayish (broccoli brown) upper parts; much less rufescent rump; more buffy, less whitish throat and breast; and proportionately shorter tail; from *T. aedon parkmanii* by longer, slenderer bill, paler, less dusky-barred dorsal surface, and much paler under parts, the throat and breast being pale pinkish buffy, the flanks dull ochraceous-buffy with mere traces of dusky barring. Wing (male), 50; tail, 38; bill, 14.

As pointed out by Chapman and Griscom, the Mangrove Wren is so decidedly intermediate between *T. aedon* and *T. musculus* that one is tempted to regard these two wrens as conspecific. The only reason that prevents me from following this course is our ignorance as to the southern limits of the breeding area of the House Wren (*T. a. parkmanii*) in Mexico. It will be recollected that the range of *T. m. peninsularis* has been shown to extend along the coastal plains north to southern Tamaulipas, while Phillips (Auk, 28, p. 81, 1911) records specimens of *T. a. parkmanii* from Realito in the Temperate region of the same state, the dates between May 27 and June 13 indicating their breeding in that vicinity. These wrens may thus prove to be zonal representatives in Tamaulipas, whereby the last obstacle for their specific association would be removed. It is greatly to be hoped that definite information on their breeding ranges in Mexico will soon be supplied.

Compared to *T. m. intermedius*, of southern Mexico and southward, *T. m. peninsularis* is easily distinguished by its longer, slenderer bill, proportionately longer tail, and much paler coloration. This is particularly striking on the under parts, which are nearly white on the throat and the middle of the abdomen shaded with very pale pinkish buff on the foreneck and breast and changing into dull ochraceous-buffy on the flanks, whereas in *T. m. intermedius* the whole ventral surface is nearly uniform deep cinnamon-buff.

- 1864—San José, Costa Rica, and Totontepec, Oaxaca, Mexico (crit.); Lawrence, Ann. Lyc. Nat. Hist. N. Y., 9, p. 93, 1868—San José and Barranca, Costa Rica; idem, l.c., 9, p. 199, 1869—Yucatan; Frantzius, Journ. Orn., 17, p. 291, 1869—San José, Alajuela, Cartago, and Orosi, Costa Rica (habits); Boucard, Proc. Zool. Soc. Lond., 1878, p. 51—San José, Cartago, and Naránjo, Costa Rica; Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 100, 1880—Mexico to Costa Rica; Sharpe, Cat. Bds. Brit. Mus., 6, p. 252, 1881—from Oaxaca to Costa Rica; Zeledón, Anal. Mus. Nac. Costa Rica, 1, p. 106, 1887—San José, Santa Maria de Dota, Monte Redondo, and Cartago, Costa Rica; Cherrie, Auk, 8, p. 275, 1891—Costa Rica (habits, nest, eggs, crit.); Richmond, Proc. U. S. Nat. Mus., 16, p. 483, 1893—Rio Escondido, Nicaragua (habits); Skinner, Condor, 3, p. 94, 1901—Tapachula, Chiapas (habits).
- Troglodytes hypaëdon* Scater, Proc. Zool. Soc. Lond., 1861, p. 128—southern Mexico [=Oaxaca] and Guatemala (types in coll. of P. L. Scater, now in British Museum); idem, l.c., 1862, p. 18—Oaxaca, Mexico; idem, Cat. Coll. Amer. Bds., p. 23, 1862—Oaxaca and Guatemala.
- Troglodytes irrequies* Bangs and Peck, Proc. Biol. Soc. Wash., 21, p. 45, 1908—Sittee River, British Honduras (type in coll. Bangs, now in Museum of Comparative Zoology, Cambridge, Mass.; cf. Bangs, Bull. Mus. Comp. Zool., 70, p. 318, 1930).
- Troglodytes* sp. Scater, Proc. Zool. Soc. Lond., 27, p. 372, 1859—Oaxaca, Mexico.
- Troglodytes aëdon* (not of Vieillot) Scater, Proc. Zool. Soc. Lond., 27, p. 363, 1859—Jalapa, Mexico; Scater and Salvin, Ibis, 1859, p. 9—Dueñas, Guatemala; Boucard, Ann. Soc. Linn. Lyon, (n.s.), 25, p. 39, 1878—Guatemala.
- Troglodytes fuvus intermedius* Ridgway, Proc. U. S. Nat. Mus., 10, p. 585, 1888—Segovia River, Honduras.
- Troglodytes musculus hypaëdon* Oberholser, Proc. U. S. Nat. Mus., 27, p. 204, 1904—southern Mexico (Oaxaca and Yucatan) and Guatemala (crit.); Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 578, 1904—Oaxaca, Yucatan, Chiapas, and Guatemala (monog.); Dearborn, Field Mus. Nat. Hist., Orn. Ser., 1, p. 133, 1907—Los Amates, Lake Amatitlan, and Tecpam, Guatemala (crit.); Peters, Auk, 30, p. 377, 1913—Camp Mengel, Quintana Roo.
- Troglodytes musculus intermedius* Oberholser, Proc. U. S. Nat. Mus., 27, p. 205, 1904—Costa Rica to southern Honduras (crit.); Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 576, 1904—Costa Rica, eastern Nicaragua, and southern Honduras (monog.); Ferry, Field Mus. Nat. Hist., Orn. Ser., 1, p. 272, 1910—Guayábo and Coliblanco, Costa Rica; Carriker, Ann. Carnegie Mus., 6, p. 766, 1910—Costa Rica (habits, nest); Chapman and Griscom, Bull. Amer. Mus. N. H., 50, p. 286, 1924—southern Mexico to Costa Rica (crit.); Peters, Bull. Mus. Comp. Zool., 69, p. 458, 1929—Lancetilla and Tela, Honduras; idem, l.c., 71, p. 331, 1931—Chiriquicito, Almirante Bay, Panama (crit.).

*Range.*—Southeastern Mexico, in states of Oaxaca, Yucatan (Mérida, La Vega), and Chiapas, through Guatemala, British

Honduras, Honduras, eastern Nicaragua (Rio Coco, Rio Escondido, Los Sábalos), and Costa Rica (except extreme southwestern section) south to northwestern Panama (Chiriquicito, Almirante Bay).<sup>1</sup>

22: Guatemala (near Tecpam, 1; Lake Amatitlan, 1); Costa Rica (San José, 2; Cartago, 2; Miravalles, 1; Orosi, 1; Coliblanco, 6; Guayábo, 8).

**\*Troglodytes musculus oreopolus** Chapman and Griscom.<sup>2</sup>  
NICARAGUAN HOUSE WREN.

*Troglodytes musculus oreopolus* Chapman and Griscom, Bull. Amer. Mus. N. H., 50, p. 287, 1924—Ocotul, Nicaragua (type in the American Museum of Natural History, New York).

*Troglodytes furrus* (not *Motacilla furva* Gmelin) Sclater, Ibis, 1873, p. 373—Chontales, Nicaragua.

*Range*.—Mountains of the north-central section of Nicaragua.

3: Nicaragua (San Rafael del Norte, 2; San Emilio, Lake Nicaragua, 1).

**\*Troglodytes musculus inquietus** Baird.<sup>3</sup> PANAMA HOUSE WREN.

*Troglodytes inquietus* Baird, Rev. Amer. Bds., 1, p. 143, 1864—Panama Railroad (type now in the American Museum of Natural History, New York); Lawrence, Ann. Lyc. Nat. Hist. N. Y., 8, p. 175, 1865—David, Chiriquí; Bangs, Proc. New Engl. Zool. Cl., 2, p. 26, 1900—Loma del Leon, Panama; idem, Auk, 18, p. 368, 1901—Divala, Chiriquí; idem, Proc. New Engl. Zool. Cl., 3, p. 53, 1902—Boquete, Chiriquí.

*Troglodytes hypaëdon* (not of Sclater) Lawrence, Ann. Lyc. Nat. Hist. N. Y., 7, p. 320, 1862—Panama Railroad; Sclater and Salvin, Proc. Zool. Soc. Lond., 1864, p. 346—Panama (crit.).

<sup>1</sup> Examination of some fifty specimens, including three from Mexico and five from Guatemala, leads me to concur with Messrs. Chapman's and Griscom's views that *T. hypaëdon* is inseparable from *T. m. intermedius*, since I have been unable to discover any constant difference, in either size or color, between northern birds and a large Costa Rican series.

<sup>2</sup> *Troglodytes musculus oreopolus* Chapman and Griscom: Exceedingly close to *T. m. intermedius*, but upper parts slightly deeper in tone; breast and flanks somewhat deeper cinnamon-buff.

Our three specimens are so closely matched by a good many Costa Rican birds that I am rather doubtful as to the propriety of separating this form. According to the describers, it is an altitudinal representative of *intermedius* in the mountains, chiefly the pine forests of central Nicaragua, while birds from the lowlands of eastern Nicaragua are stated to be referable to *intermedius*. This distribution is rather singular, since in Costa Rica *T. m. intermedius* is mainly an inhabitant of the highlands between 2,000 and 7,000 feet of elevation. The status of *T. m. oreopolus* would thus appear to require further investigation.

<sup>3</sup> *Troglodytes musculus inquietus* Baird: Easily distinguished from *T. m. intermedius* by larger size, more grayish upper, and less buffy under parts; much nearer to *T. m. atopus* of the Santa Marta region, but more grayish above, markedly less ochraceous below, especially on flanks and crissum, and with shorter bill.

*Troglodytes tessellatus* (not of Lafresnaye and d'Orbigny) Salvin, Proc. Zool. Soc. Lond., 1867, p. 135—David, Chiriquí (crit.).

*Troglodytes furrus* (not *Motacilla furva* Gmelin) Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 101, 1880—part, David, Chitrá, and Calovévora (Veraguas), Obispo and Lion Hill, Panama.

*Troglodytes striatulus* (not of Lafresnaye) Sharpe, Cat. Bds. Brit. Mus., 6, p. 254, 1881—part, Lion Hill, Paraiso, and Colón (Panama Railroad), Chitrá and Calovévora (Veraguas); Salvadori and Festa, Boll. Mus. Zool. Torino, 14, No. 339, p. 2, 1899—Punta de Sabana, Darien.

*Troglodytes musculus inquietus* Oberholser, Proc. U. S. Nat. Mus., 27, p. 205, 1904—Panama (crit.); Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 575, 1904—Isthmus of Panama to Chiriquí (monog.); Thayer and Bangs, Bull. Mus. Comp. Zool., 46, p. 154, 1905—San Miguel Island, Panama; idem, l.c., p. 220, 1906—savanna of Panama; Bangs, Auk, 24, p. 304, 1907—Boruca, Costa Rica; Carriker, Ann. Carnegie Mus., 6, p. 767, 1910—Boruca, Costa Rica (crit.); Stone, Proc. Acad. Nat. Sci. Phila., 70, p. 271, 1918—Gatun and Fort Lorenzo, Panama (nest); Rendahl, Ark. Zool., 13, p. 42, 1920—Tropiche Island, Pearl Islands, Panama; Hallinan, Auk, 41, p. 325, 1924—Las Cascados and Corozal, Panama (nest); Chapman and Griscom, Bull. Amer. Mus. N. H., 50, p. 290, 1924—southwestern Costa Rica to eastern Panama (crit.); Griscom, Bull. Mus. Comp. Zool., 69, p. 182, 1929—Cana, Darien; Peters, l.c., 71, p. 332, 1931—Cricamola, Panama.

*Range*.—Extreme southwestern Costa Rica (Boruca, Térraba Valley) and Panama, east to Darien.

2: Panama (Colón, 2).

**\*Troglodytes musculus atopus Oberholser.<sup>1</sup> SANTA MARTA HOUSE WREN.**

*Troglodytes musculus atopus* Oberholser, Proc. U. S. Nat. Mus., 25, p. 207, 1904—Cacagualito, Santa Marta, Colombia (type in the American Museum of Natural History, New York); Allen, Bull. Amer. Mus. N. H., 21, p. 278, 1905—Santa Marta; Todd and Carriker, Ann. Carnegie Mus., 14, p. 418, 1922—Fundación, Bonda, Don Diego, Cincinnati, Gaira, Rio Hacha, and Tucurínca, Santa Marta (crit., habits); Chapman and Griscom, Bull. Amer. Mus. N. H., 50, p. 290, 1924—Santa Marta region (crit.); Darlington, Bull. Mus. Comp. Zool., 71, p. 408, 1931—Rio Frio, Magdalena.

*Troglodytes furrus* (not *Motacilla furva* Gmelin) Sclater, Cat. Coll. Amer. Bds., p. 23, 1862—part, spec. a, Santa Marta.

<sup>1</sup> *Troglodytes musculus atopus* Oberholser is somewhat intermediate between *T. m. striatulus* and *T. m. clarus*, but more deeply ochraceous below than either. It is doubtless more nearly related to *T. m. inquietus* than to any other race, being, however, distinguishable by slightly more brownish dorsal surface, deeper ochraceous under parts, and longer bill.

The single bird from El Guayabal appears to be inseparable from those of Santa Marta.

*Material examined*.—Colombia: Aracataca, 5; Fundación, 2; Santa Marta, 1; El Guayabal, Santander, 1.

*Troglodytes tessellatus* (not of Lafresnaye and d'Orbigny) Salvin and Godman, *Ibis*, 1879, p. 198—"Maricosa" [= Marocasol], Santa Marta Mountains; idem, *Ibis*, 1880, p. 117—Santa Marta.

*Troglodytes rufulus* (not of Cabanis) Sharpe, *Cat. Bds. Brit. Mus.*, 6, p. 258, 1881—part, "Maricosa" and Santa Marta (crit.).

*Troglodytes musculus rufulus* Stone, *Proc. Acad. Nat. Sci. Phila.*, 51, p. 31, 1899—part, northeastern Colombia; Allen, *Bull. Amer. Mus. N. H.*, 13, p. 179, 1900—Minca, Cacagualito, Cienaga, and Bonda, Santa Marta.

*Range*.—Tropical zone of the Santa Marta region, extending south to the northern base of the eastern Andes in the vicinity of San José de Cucuta, Santander, in northeastern Colombia.

3: Colombia (Fundación, Santa Marta, 2; El Guayabal, ten miles north of San José de Cucuta, Santander, 1).

***Troglodytes musculus striatulus* (Lafresnaye).<sup>1</sup> CAUCA HOUSE WREN.**

*Thriothorus striatulus* Lafresnaye, *Rev. Zool.*, 8, p. 338, 1845—"Bogotá," Colombia<sup>2</sup> (type in coll. Lafresnaye, now in Museum of Comparative Zoology, Cambridge, Mass.; cf. Bangs, *Bull. Mus. Comp. Zool.*, 70, p. 318, 1930).

*Thryothorus striatulus* Sclater, *Proc. Zool. Soc. Lond.*, 23, p. 143, 1855—Bogotá (ex Lafresnaye).

*Troglodytes striatulus* Sharpe, *Cat. Bds. Brit. Mus.*, 6, p. 254, 1881—part, Bogotá and Medellín, Antioquia, Colombia; Stone, *Proc. Acad. Nat. Sci. Phila.*, 51, p. 308, 1899—Honda, Magdalena Valley.

*Troglodytes musculus striatulus* Oberholser, *Proc. U. S. Nat. Mus.*, 25, p. 205, 1904—Colombia (part); Chapman, *Bull. Amer. Mus. N. H.*, 36, p. 518, 1917—part, Alto Bonito, Dabeiba, Bagado, Puerto Valdivia, La Frijolera, Caldas, Las Lomitas, San Antonio, Cali, La Manuelita, Rio Frio, Miraflores, Salento, Santa Elena, Rio Toché, La Sierra, Andalucia, Chicoral, Honda, and Anolaima, Colombia (crit.); idem and Griscom, *l.c.*, 50, p. 291, 1924—Colombia (crit.).

*Troglodytes tessellatus* (not of Lafresnaye and d'Orbigny) Sclater and Salvin, *Proc. Zool. Soc. Lond.*, 1879, p. 493—Medellin and Concordia, Colombia.

*Range*.—Tropical and Subtropical zones of Colombia from the western slope of the eastern Andes westward, exclusive of Santa Marta region and extreme southwestern Colombia.

<sup>1</sup> *Troglodytes musculus striatulus* (Lafresnaye) may be separated from the neighboring races by larger size, decidedly grayish brown dorsal surface, and nearly white to pale buffy under parts.

In addition to twenty native "Bogotá" skins we have examined five from Antioquia (Medellin, Dabeiba), six from Cali, and four from San Antonio, western Andes.

<sup>2</sup> Honda suggested as type locality by Chapman (*Bull. Amer. Mus. N. H.*, 36, p. 519, 1917).

**\*Troglodytes musculus columbae Stone.<sup>1</sup> COLOMBIAN HOUSE WREN.**

*Troglodytes columbae* Stone, Proc. Acad. Nat. Sci. Phila., 51, p. 308, 1899—vicinity of Bogotá (type in Academy of Natural Sciences, Philadelphia).

*Troglodytes musculus columbae* Chapman, Bull. Amer. Mus. N. H., 36, p. 520, 1917—El Roble, El Piñon, La Holanda, Tocaimito, Páramo de Beltran, Fomeque, Chipaque, and Quetame, eastern Andes, Colombia (crit.); idem and Griscom, l.c., 50, p. 291, 1924—Temperate zone of eastern Andes of Colombia (crit.).

*Troglodytes tecellatus* (not of Lafresnaye and d'Orbigny) Wyatt, Ibis, 1871, p. 321—Pamplona Road, 9,000 feet, and Ocaña, Santander (nesting).

*Troglodytes striatulus* (not of Lafresnaye) Berlepsch, Journ. Orn., 32, p. 281, 1884—Bucaramanga (spec. examined).

*Troglodytes musculus striatulus* Oberholser, Proc. U. S. Nat. Mus., 25, p. 205, 1904—Colombia (part).

**Range.**—Temperate zone of eastern Andes of Colombia and western Venezuela (Andes of Mérida).

5: Venezuela (Páramo de Tambor, 1; Mérida, 2); Colombia (Cachiri, Santander, 2).

**\*Troglodytes musculus albicans Berlepsch and Taczanowski.\* WHITE-BELLIED HOUSE WREN.**

*Troglodytes fuscus albicans* Berlepsch and Taczanowski, Proc. Zool. Soc. Lond., 1883, p. 540—Guayaquil, Ecuador (type in Berlepsch Collection, now in Frankfurt Museum, examined); Hartert, Nov. Zool., 5, p. 479, 1898—Cachaví and Paramba, northwestern Ecuador.

<sup>1</sup> *Troglodytes musculus columbae* Stone: Similar to *T. m. striatulus*, but upper surface slightly darker grayish brown and always finely barred with dusky, and under parts much darker, vinaceous-buff with no white on throat or abdomen.

Two Bucaramanga specimens are typical of this form, agreeing with those from Cachiri and Páramo de Tambor in the saturated coloration of the lower surface. The same race also occurs in native "Bogotá" collections. Birds from Mérida (alt. 5,000 ft.) are intermediate to *T. m. albicans*.

**Material examined.**—Colombia: Bucaramanga, 2; Cachiri, Santander, 2; Chipaque, 4; Choachi, 1; "Bogotá," 3.—Venezuela: Páramo de Tambor, 1; "Mérida," 4.

<sup>2</sup> *Troglodytes musculus albicans* Berlepsch and Taczanowski: Differs from *T. m. striatulus* by considerably smaller size; (in fresh plumage) warm brown, slightly rufescent, instead of grayish brown, dorsal surface with much more rufous rump; more reddish flight quills; much deeper, more isabelline coloration of breast, flanks, and under tails coverts. It is much nearer to *T. m. clarus*, from which it can hardly be separated by shorter tail (33–38 mm.); on average shorter wings; more rufescent upper parts, particularly the rump; and slightly brighter chest and sides. These insignificant divergencies, with the possible exception of the shorter tail, are, however, so nearly bridged over by individual variation that the recognition of *T. m. albicans* remains problematical. Messrs. Chapman and Griscom have indeed proposed to unite it with *T. m. clarus*.

**Material examined.**—Thirty-two specimens from western Ecuador (various localities between Esmeraldas and Guayaquil).



*Troglodytes furvus* (not *Motacilla furva* Gmelin) Sclater, Proc. Zool. Soc. Lond., 27, p. 137, 1859—Pallatanga; idem, l.c., 28, pp. 273, 291, 1860—Babahoyo and Esmeraldas; idem, Cat. Coll. Amer. Bds., p. 23, 1862—part, spec. c-e, Pallatanga and Babahoyo; Berlepsch and Taczanowski, Proc. Zool. Soc. Lond., 1884, p. 285—Surupata, Ecuador; idem, l.c., 1885, p. 73—Yaguachi.

*Troglodytes rufulus* (not of Cabanis) Sharpe, Cat. Bds. Brit. Mus., 6, p. 258, 1881—part, Ecuador ("Quito" and Monji).

*Troglodytes albicans* Salvadori and Festa, Boll. Mus. Zool. Torino, 14, No. 357, p. 7, 1899—La Concepción (Valle del Chota), Babahoyo, savanna de Guayaquil, Vinces, Balzar, and Puntilla de Santa Elena, Ecuador; Lönnberg and Rendahl, Ark. Zool., 14, No. 25, p. 77, 1922—Ila and Zambiza, Ecuador.

*Troglodytes musculus albicans* Stone, Proc. Acad. Nat. Sci. Phila., 51, p. 312, 1899—Ecuador; Oberholser, Proc. U. S. Nat. Mus., 27, p. 207, 1904—Ecuador (crit.); Chapman and Griscom, Bull. Amer. Mus. N. H., 50, p. 292, 1924—part, southwestern Colombia (Barbacoas, Tumaco) and western Ecuador (crit.); Chapman, l.c., 55, p. 569, 1926—Bucay, junction of Chanchan and Chiguancay rivers, Huigra, Chunchi, Esmeraldas, Rio de Oro, Isla La Plata, Chongoncito, Daule, Duran, Rio Pindo, El Chiral, La Puente, Santa Rosa, Portovelo, Casanga, Alamor, Lunamá, and Cebollal, Ecuador (crit.).

*Troglodytes musculus striatulus* (not *Thriothon striatulus* Lafresnaye) Chapman, Bull. Amer. Mus. N. H., 36, p. 518, 1917—part, Barbacoas and Tumaco, Colombia.

*Range*.—Southwestern Colombia, in State of Nariño (Tumaco, Barbacoas), and western Ecuador, chiefly in the Tropical zone, but locally up to 8,000 feet.

3: Ecuador (Puente de Chimbo, 2; Milagro, 1).

**\**Troglodytes musculus clarus* Berlepsch and Hartert.<sup>1</sup> PALE-BELLIED HOUSE WREN.**

*Troglodytes musculus clarus* Berlepsch and Hartert, Nov. Zool., 9, p. 8, 1902—Bartica Grove, British Guiana, and Altagracia and Ciudad Bolívar (Orinoco River), Suapure and La Pricion (Caura River), Venezuela (type from Bartica Grove in Berlepsch Collection, now in Frankfort Museum, examined); Oberholser, Proc. U. S. Nat. Mus., 27, p. 206, 1904—Venezuela, Guiana, Trinidad, and lower Amazonia (crit.); Hellmayr, Nov. Zool., 12, p. 270, 1905—Igarapé-Assú, Pará; idem, l.c., 13, p. 6, 1906—Caparo, Trinidad; idem, l.c., 14, p. 2, 1907—Urucurituba, Rio Tapajóz;

<sup>1</sup> *Troglodytes musculus clarus* Berlepsch and Hartert: Most nearly related to *T. m. musculus*, but underneath much paler, buff rather than light pinkish cinnamon, with the throat and abdominal line more whitish.

Further subdivision of this form appears to me impracticable. Specimens from French and Dutch Guiana (*paramaribensis*) sometimes attain a degree of darkness with an amount of dusky barring above that I have yet to see from other parts of the range, but as the majority are not distinguishable in any way from the general run of the House Wren of British Guiana and Venezuela, their separation

idem, l.c., p. 41, 1907—Teffé, Rio Solimões; idem, l.c., 17, p. 264, 1910—Calama, Rio Madeira; idem, Abhandl. Math.-Phys. Kl. Bayr. Akad. Wiss., 26, No. 2, pp. 86, 98, 118, 123, 1912—Pará localities, Mexiana, and Marajó (Cachoeira); Cherrie, Sci. Bull., Mus. Brookl. Inst., 1, p. 187, 1906—Aripo, Trinidad; idem, l.c., 1, p. 355, 1908—Aripo and Carenage, Trinidad; Berlepsch, Nov. Zool., 15, pp. 107, 316, 1908—Cayenne, St. Georges d'Oyapock, and Mahury, French Guiana; Beebe, Zoologica (N.Y.), 1, p. 99, 1909—Guanoco, Orinoco Delta, Venezuela; idem, l.c., 2, p. 96, 1916—Pará; Stone, Proc. Acad. Nat. Sci. Phila., 65, p. 207, 1913—Cariaquito, Paria Peninsula, Venezuela; Cherrie, Sci. Bull., Mus. Brookl. Inst., 2, p. 149, 1916—Orinoco region (habits); Beebe, Trop. Wild Life, 1, p. 135, 1917—Bartica, British Guiana; Snethlage, Bol. Mus. Goeldi, 8, p. 492, 1914—Pará, Apehú, Peixe-Boi, Quati-Purú, Capim (Aproaga), Tocantins (Alcobaça), Xingú (Victoria), Tapajóz (Boim, Villa Braga), Marajó (São Natal, Pindobal), Mexiana, Monte Alegre, Rio Jamundá (Faro), and Maranhão, Brazil; idem, Bol. Mus. Nac. Rio de Janeiro, 2, No. 6, p. 59, 1926—Anil, Maranhão; Hellmayr, Arch. Naturg., 90, A, Heft 2, p. 153, 1924—Loma Redonda, north coast of Venezuela; idem, Field Mus. Nat. Hist., Zool. Ser., 12, p. 256, 1929—São Luiz, Codó (Cocos), and Miritiba, Maranhão (crit.); Stone, Proc. Acad. Nat. Sci. Phila., 80, p. 172, 1928—Pará.

*Troglodytes americana* (not of Audubon, 1834) Pucheran,<sup>1</sup> Arch. Mus. Hist. Nat. Paris, 7, p. 338, 1855—Cayenne (type in Paris Museum examined).

*Troglodytes musculus paramaribensis* Bangs and Penard, Bull. Mus. Comp. Zool., 62, p. 81, 1918—Paramaribo, Dutch Guiana (type in Museum of Comparative Zoology, Cambridge, Mass.).

*Troglodytes musculus neglectus* (not *T. neglectus* Brooks, 1872) Chapman, Bull. Amer. Mus. N. H., 36, p. 520, 1917—Buena Vista, above Villavicencio, base of eastern Andes of Colombia (type in the American Museum of Natural History, New York).

*Troglodytes musculus chapmani* Stone, Auk, 35, p. 244, 1918—new name for *T. musculus neglectus* Chapman, preoccupied.

*Thryothorus platensis* (not *Sylvia platensis* Latham) Cabanis, in Schomburgk, Reisen Brit. Guiana, 3, p. 673, 1848—Georgetown; Pelzeln, Orn. Bras.,

does not seem to be justified. Skins from Amazonia, the coast region of Maranhão, and eastern Colombia (*chapmani*) I am likewise unable to differentiate from *T. m. clarus*, which, in its turn, may have to be merged with *T. m. albicans*. Birds from Trinidad, as a whole, agree with the Venezuelan ones, though certain examples by more whitish under parts form the transition to *T. m. tobagensis*.

*Additional material examined.*—Trinidad: Caparo, 11; Icacos, 2; Aripo, 3.—Venezuela: Sucre (Campos Alegre, Santa Ana, Los Palmales, Quebrada Secca, La Tigra, Carúpano, etc.), 21; Loma Redonda, near Caracas, 1; San Esteban, Carabobo, 1; Altigracia, Orinoco, 12; Ciudad Bolívar, 4; Caura Valley (La Prición, Suapure), 5.—British Guiana: Bartica Grove, 2; Annai, 2; Roraima, 2.—Dutch Guiana: near Paramaribo, 7; Albina, 3; Rijweg, 1; Kwata, 1.—French Guiana: Cayenne, 11.—Brazil: Mexiana, 2; Marajó, 3; Igarapé-Assú, Pará, 2; Urucurituba, Tapajóz, 1; Calama, Rio Madeira, 1; Manáos, 1; Forte do São Joaquim, Rio Branco, 1; Villa Bella, Rio Guaporé, Matto Grosso, 1; Teffé, Rio Solimões, 1.—Colombia: Buena Vista, above Villavicencio, 4.—Peru: Chyavetas, 1; Xeberos, 1; lower Ucayali, 1; Huayabamba, 1.

<sup>1</sup> *Troglodytes americana* Lesson (Traité d'Orn., p. 400, 1831) is a nomen nudum.

1, p. 48, 1868—Villa Bella de Matto Grosso, Forte do Rio Branco, and Barra [= Manáos], Brazil.

*Troglodytes furrus* (not *Motacilla furva* Gmelin) Sclater, Cat. Coll. Amer. Bds., p. 23, 1862—part, spec. f, g, Mexiana and Trinidad; Sclater and Salvin, Proc. Zool. Soc. Lond., 1866, p. 178—lower Ucayali, Peru; idem, l.c., 1867, p. 568—Pará; idem, l.c., 1873, p. 257—lower Ucayali, Xeberos, and Chyavetas, Peru; Layard, Ibis, 1873, p. 377—Pará; Salvin, Ibis, 1885, p. 201—Bartica Grove and Roraima, British Guiana; Berlepsch, Journ. Orn., 37, p. 293, 1889—Tarapoto, Rio Huallaga, Peru (crit.).

*Troglodytes rufulus* (not of Cabanis) Léotaud, Ois. Trinidad, p. 170, 1866—Trinidad; Chapman, Bull. Amer. Mus. N. H., 6, p. 23, 1894—Port of Spain, Trinidad (crit.); Phelps, Auk, 14, p. 363, 1897—Cumanacoa and San Antonio, Sucre; Robinson, Proc. U. S. Nat. Mus., 18, p. 685, 1895—La Guaira, Venezuela; idem, l.c., 24, p. 177, 1901—La Guaira; Williams, Bull. Dept. Agric. Trin. Tobago, 20, p. 126, 1924—Trinidad (nesting habits).

*Troglodytes tessellatus* (not of Lafresnaye and d'Orbigny) Sclater and Salvin, Proc. Zool. Soc. Lond., 1867, pp. 749, 754—Xeberos and Chyavetas, Peru; idem, l.c., 1873, p. 257—same localities.

*Troglodytes parvus* (lapsu) Sclater and Salvin, Proc. Zool. Soc. Lond., 1868, p. 166—Carúpano, Sucre, Venezuela.

*Troglodytes audax* (not of Tschudi) Taczanowski, Proc. Zool. Soc. Lond., 1880, p. 191—Callacate, Peru; idem, Orn. Pér., 1, p. 525, 1884—part, Callacate and Cutervo, Peru.

*Troglodytes musculus* (not of Naumann) Goeldi, Ibis, 1903, p. 499—Capim River, Pará; Hagmann, Zool. Jahrb. (Syst.), 26, p. 25, 1907—Mexiana; Snethlage, Journ. Orn., 56, p. 521, 1908—Alcobaça, Tocantins; Penard and Penard, Vog. Guiana, 2, p. 523, 1910—Surinam (habits).

*Troglodytes striatulus* (not *Thriothorus striatulus* Lafresnaye) Ménégau, Bull. Mus. Hist. Nat. Paris, 10, p. 115, 1904—Saint Georges d'Oyapock and Mahury, French Guiana.

*Troglodytes clarus* Chubb, Bds. Brit. Guiana, 2, p. 360, 1921—upper Takutu Mountains; Delacour, Ibis, 1923, p. 148, Venezuela.

*Troglodytes musculus albicans* (not of Berlepsch and Taczanowski) Bangs and Noble, Auk, 35, p. 457, 1918—Huancabamba and Bellavista, Rio Marañón, Peru; Chapman and Griscom, Bull. Amer. Mus. N. H., 50, p. 292, 1924—part, excl. southwestern Colombia and Ecuador (crit.); Zimmer, Field Mus. Nat. Hist., Zool. Ser., 17, p. 405, 1930—Chinchao, Vista Alegre, and Huachipa, Dept. Huánuco, Peru (crit.); Chapman, Bull. Amer. Mus. N. H., 63, p. 108, 1931—Paulo, Philipp Camp, and Rondon Camp, Roraima (crit.).

*Range*.—Tropical zone of Trinidad; Venezuela; British, Dutch, and French Guiana; Brazil, east to the coast region of Maranhão, south to western Matto Grosso (Villa Bella); eastern and northern Peru; eastern Colombia (Buena Vista, eastern slope of eastern Andes).<sup>1</sup>

<sup>1</sup> No record from eastern Ecuador.

48: British Guiana (Georgetown, 2); Venezuela (Santa Ana Valley, Sucre, 1; Caracas, 9; Macuto, near Caracas, 3; Maracay, Aragua, 3; Colón, Tachira, 3; Rio Aurare, Zulia, 1; Encontrados, Zulia, 2); Brazil (Serra da Lua, Rio Branco, 2; Bôa Vista, Rio Branco, 2; Manáos, 1; Itacoatiará, 3; Codó, Cocos, Maranhão, 2; São Luiz, Maranhão, 2); Peru (Moyobamba, 4; Yurimaguas, 1; Chachapoyas, 1; Uchco, 2; Chinchao, 2; Vista Alegre, 1; Huachipa, 1).

**\*Troglodytes musculus tobagensis** Lawrence.<sup>1</sup> TOBAGO HOUSE WREN.

*Troglodytes tobagensis* Lawrence, Auk, 5, p. 404, 1888—Tobago (type now in the American Museum of Natural History, New York); Cory, Auk, 10, p. 220, 1893—Tobago; Dalmás, Mém. Soc. Zool. France, 13, p. 133, 1900—Tobago (crit.).

*Troglodytes musculus tobagensis* Oberholser, Proc. U. S. Nat. Mus., 27, p. 206, 1904—Tobago (crit.); Hellmayr, Nov. Zool., 13, p. 6, 1906—Tobago (crit.); Chapman and Griscom, Bull. Amer. Mus. N. H., 50, p. 294, 1924—Tobago (crit.).

*Troglodytes furva* (not *Motacilla furva* Gmelin) Jardine, Ann. Mag. Nat. Hist., 19, p. 82, 1847—Tobago (habits).

*Range*.—Island of Tobago, British West Indies.

1: Tobago.

**\*Troglodytes musculus musculus** Naumann. EAST BRAZILIAN HOUSE WREN.

*Troglodytes musculus* Naumann, Naturg. Vög. Deutschl., 3, tab. facing p. 724, 1823—Bahia (type in Berlin Museum); Sharpe, Cat. Bds. Brit. Mus., 6, p. 255, 1881—part, Brazil; Allen, Bull. Amer. Mus. N. H., 2, p. 214, 1889—Brazil (note on Wied's specimens); idem, l.c., 3, p. 343, 1891—Chapada, Matto Grosso; Ihering, Rev. Mus. Paul., 2, p. 165, 1897—São Sebastião, São Paulo; Euler, l.c., 4, p. 12, 1900—Brazil (nesting habits); Ihering, l.c., p. 152, 1900—Cantagallo; idem, l.c., p. 199, 1900—Brazil (nesting habits); Salvadori, Boll. Mus. Zool. Torino, 15, No. 378, p. 3, 1900—Urucúm, Matto Grosso; Oberholser, Proc. U. S. Nat. Mus., 25, p. 140, 1902—Sapucay, Paraguay; Nicoll, Ibis, 1904, p. 40—Bahia; Ihering, Cat. Faun. Braz., 1, p. 325, 1907—Bahia; Reiser, Denks. Math.-Naturwiss. Kl. Akad. Wiss. Wien, 76, p. 78, 1910—Beberibé (near Recife, Pernambuco), Barra and Fazenda da Serra (Bahia), Brazil; idem, l.c., p. 171, 1925—Parnaguá, Colonia Floriano, and Caitetú, Piahy; Grant, Ibis, 1911, p. 86—part, Paraguay (Villa Franca, Colonia Risso) and Cabo

<sup>1</sup> *Troglodytes musculus tobagensis* Lawrence: Nearest to *T. m. clarus*, but wings longer; bill heavier; under parts whiter, the buffy tinge on chest and sides of breast being absent or but slightly suggested. Wing, 56–60, (female) 54–57; tail, 37–42, (female) 38–41; bill, 15–16½.

*Material examined*.—Tobago: Man o' War Bay, 8; Waterloo, 2; Castare, 3; unspecified, 1.

Emma, Rio Paraguay, southeastern Bolivia; Bertoni, Faun. Parag., p. 59, 1914—Alto Paraná, Paraguay; Snethlage, Bol. Mus. Nac. Rio de Janeiro, 2, No. 6, p. 40, 1926—Ceará (crit.).

*Troglodytes aequinoctialis* Swainson, Orn. Draw., Part 2, pl. 13, 1834; Pelzeln, Reise Novara, Zool., 1, Vögel, p. 6, 1865—Catumbý Grande, Rio de Janeiro.

*Thryothorus platensis* (not *Sylvia platensis* Latham) Vieillot, Nouv. Dict. Hist. Nat., nouv. éd., 34, p. 510, 1819—mainly based on Azara, No. 150, Paraguay (excl. syn. *Sylvia platensis* Latham and Buffon [=Daubenton], Pl. Enl., pl. "780" [=730], fig. 2); Wied, Beitr. Naturg. Bras., 3, (2), p. 742, 1831—Rio de Janeiro, Caravellas and Belmonte (Bahia); Nordmann, in Erman's Reise, Naturhist. Atlas, p. 13, 1835—Brazil; Pelzeln, Orn. Bras., 1, p. 48, 1868—part, Rio de Janeiro, Ypanema and Cimetério (São Paulo), Cuyabá (Matto Grosso).

*Troglodytes platensis* d'Orbigny, Voy. Amér. Mérid., Ois., p. 231, 1838—var. B, part, Rio de Janeiro; Burmeister, Syst. Uebers. Th. Bras., 3, p. 137, 1856—Paraguay, São Paulo, and Minas Geraes; Reinhardt, Vidensk. Medd. Naturhist. Foren., 1870, p. 446—Rio de Janeiro (Nova Friburgo) and Minas Geraes (Curvelo and Lagôa Santa).

*Troglodytes hiemalis* (not of Vieillot) Lafresnaye and d'Orbigny, Syn. Av., 1, in Mag. Zool., 7, cl. 2, p. 26, 1837—part, Rio de Janeiro.

*Troglodytes furvus* (not *Motacilla furva* Gmelin) Burmeister, Reise Bras., pp. 164, 455, 1853—Nova Friburgo, Rio, and Congonhas, Minas Geraes; idem, Syst. Uebers. Th. Bras., 3, p. 137, 1856—southeastern Brazil (eggs); Euler, Journ. Orn., 15, p. 405, 1867—Cantagallo (nesting habits); Forbes, Ibis, 1881, p. 328—Pernambuco; Dalglish, Proc. Roy. Phys. Soc. Edin., 10, p. 77, 1889—Ytañú, Paraguay; Kerr, Ibis, 1892, p. 123—lower Pilcomayo; Salvadori, Boll. Mus. Zool. Torino, 10, No. 208, p. 3, 1895—Villa Rica, Paraguay; Ihering, Rev. Mus. Paul., 3, p. 131, 1899—Ypiranga and São Sebastião, São Paulo.

*Troglodytes guariza* (not of Des Murs, 1847) Pucheran,<sup>1</sup> Arch. Mus. Hist. Nat. Paris, 7, p. 333, 1855—Brazil (the cotypes, one collected by Delalande, Jr., in the vicinity of Rio de Janeiro, the other taken by A. de Saint Hilaire somewhere in southeastern Brazil, Rio or Minas, examined in the Paris Museum).

*Thryothorus wiedi* Berlepsch, Journ. Orn., 21, p. 231, 1873—new name for *Thryothorus platensis* Wied, Beitr. Naturg. Bras., 3, (2), p. 742, 1831—Rio de Janeiro (as designated by Hellmayr, Verh. Orn. Ges. Bay., 14, p. 129, footnote 1, 1919).

*Troglodytes musculus wiedi* Hellmayr, Nov. Zool., 12, p. 270, 1905—part, Minas Geraes, Rio de Janeiro, and São Paulo; Ihering and Ihering, Cat. Faun. Braz., 1, p. 325, 1907—São Paulo (São Sebastião, Piquete, Ypiranga, Itararé, Jundiáhy) and Espírito Santo (Porto Cachoeira); Hellmayr, Nov. Zool., 28, p. 275, 1921—southern Brazil and Paraguay (crit.).

<sup>1</sup> *Troglodytes guariza* Lesson (Traité d'Orn., p. 400, 1831) and *Troglodytes guereza* Lesson (Rev. Zool., 3, p. 264, 1844) are nomina nuda.

*Troglodytes musculus musculus* Oberholser, Proc. U. S. Nat. Mus., 27, p. 202, 1904—eastern Brazil, west to Paraguay (crit.); Hellmayr, Nov. Zool., 12, p. 270, 1905 (range, crit.); Chapman and Griscom, Bull. Amer. Mus. N. H., 50, p. 294, 1924—Ceará south to São Paulo, Matto Grosso, and Paraguay (crit.); Sztolcman, Ann. Zool. Mus. Pol. Hist. Nat., 5, p. 182, 1926—Fazenda Durski, Vermelho, and Salto Guayra, Paraná;<sup>1</sup> Wetmore, Bull. U. S. Nat. Mus., 133, p. 347, 1926—west of Puerto Pinasco, Paraguay; Holt, Bull. Amer. Mus. N. H., 57, p. 312, 1928—Serra do Itatiaya, Brazil; Hellmayr, Field Mus. Nat. Hist., Zool. Ser., 12, p. 256, 1929—Arára, Piahy, and Serra de Baturité, Ceará (crit.); Naumburg, Bull. Amer. Mus. N. H., 60, p. 325, 1930—Paraguay (Trinidad, Fort Wheeler, Puerto Pinasco) and Matto Grosso (Urucúm, Belvedere de Urucúm, Tapirapoan).

*Troglodytes musculus rex* (not of Berlepsch and Leverkühn) Oberholser, Proc. U. S. Nat. Mus., 27, p. 202, 1904—part, Chapada, Matto Grosso; Sztolcman, Ann. Zool. Mus. Pol. Hist. Nat., 5, p. 182, 1926—Rio de Janeiro.

*Troglodytes musculus guariza* Hellmayr, Nov. Zool., 15, p. 18, 1908—Goyaz and Fazenda Esperança, Goyaz (crit.); Chubb, Ibis, 1910, p. 614—Sapucay, Paraguay (eggs descr.); Ménégau, Rev. Franç. d'Orn., No. 98, p. 84, 1917—Poconé, Matto Grosso; idem, l.c., No. 115, p. 334, 1918—Villa Lutetia, near San Ignacio, Misiones.

*Troglodytes musculus beckeri* Cory, Field Mus. Nat. Hist., Orn. Ser., 1, p. 344, 1916—Serra de Baturité, Ceará (type in Field Museum).

*Range.*—The greater part of Brazil, from Piahy and Ceará south to Matto Grosso, São Paulo, and Paraná; Paraguay; north-eastern Argentina (Misiones).<sup>2</sup>

9: Brazil (Serra Baturité, Ceará, 1; Arára, Piahy, 1; Macaco Secco, near Andarahy, Bahia, 1; Bahia, 1; Therezopolis, Rio de Janeiro, 3; Victoria, São Paulo, 1); Argentina (Caraguatay, Misiones, 1).

<sup>1</sup> *Troglodytes musculus magellanicus* Sztolcman (l.c., p. 182), from the same general district (Rio Claro and Fazenda Ferreira), probably is not different from the present form.

<sup>2</sup> Subdivision into two races, *T. m. musculus*, from Bahia northwards, and *T. m. wiedi*, from Rio de Janeiro south and west, turns out to be impracticable in the light of more satisfactory material that came to hand after I dealt with these wrens in 1921. The type of *T. m. beckeri* proved to be a perfectly typical example of *musculus* as represented by Bahia skins. A single adult from Misiones is slightly darker, less brownish above, thus verging in the direction of *T. m. bonariae*, but in other respects it agrees with Brazilian specimens.

*Material examined.*—Ceará: Serra Baturité, 1.—Piahy: Arára, 1.—Pernambuco: Beberibé, near Recife, 2.—Bahia: Barra, 1; Fazenda da Serra, 1; Macaco Secco, 1; Bahia, 7.—Espírito Santo: Victoria, 2.—Rio de Janeiro: Therezopolis, 3; Rio de Janeiro, 2; Petropolis, 1.—São Paulo: Victoria, 5; Ypanema, 1.—Minas Geraes: Agua Suja, 3; Rio Jordão, Araguay, 2.—Goyaz: Goyaz, 7; Fazenda Esperança, 4.—Matto Grosso: Chapada, 3.—Argentina: Caraguatay, Misiones, 1.—Paraguay: Villa Rica, 1.

**\*Troglodytes musculus rex Berlepsch and Leverkühn.<sup>1</sup> BOLIVIAN HOUSE WREN.**

*Troglodytes furvus* (Gm.) subsp. *rex* Berlepsch and Leverkühn, *Ornis*, 6, p. 6, 1890—Samaipata, eastern Bolivia (type in Berlepsch Collection, now in Frankfurt Museum, examined).

*Troglodytes platensis* (not *Sylvia platensis* Latham) d'Orbigny, *Voy. Amér. Mérid.*, Ois., p. 231, 1838—part, Valle Grande, Bolivia; Burmeister, *Journ. Orn.*, 8, p. 252, 1860—Argentina (in part); idem, *Reise La Plata St.*, 2, p. 476, 1861—Argentina (in part).

*Troglodytes furvus* (not *Molacilla furva* Gmelin) Sclater and Salvin, *Proc. Zool. Soc. Lond.*, 1879, p. 593—part, Valle Grande (ex d'Orbigny); Durnford, *Ibis*, 1880, p. 416—Tucumán; Sclater and Hudson, *Arg. Orn.*, 1, p. 13, 1888—Argentina (in part); Koslowsky, *Rev. Mus. La Plata*, 6, p. 278, 1895—Chilecito, La Rioja; Salvadori, *Boll. Mus. Zool. Torino*, 12, No. 292, p. 4, 1897—Campo Santo and Tala, Salta; Chaco Boliviano; San Francisco and Caiza, Bolivia; Lillo, *Anal. Mus. Nac. Hist. Nat. Buenos Aires*, 8, p. 172, 1902—Tucumán.

*Troglodytes musculus* (not of Naumann) Lillo, *Rev. Letr. Cienc. Soc.*, 3, p. 39, 1905—Tucumán; Grant, *Ibis*, 1911, p. 86—part, Arjerichi, Formosa, and Riacho Ancho, Chaco; Budin, *El Hornero*, 4, p. 410, 1931—Maimará, Jujuy.

*Troglodytes musculus rex* Stone, *Proc. Acad. Nat. Sci. Phila.*, 51, p. 310, 1899—"Samarpata" [=Samaipata], Bolivia; Oberholser, *Proc. U. S. Nat. Mus.*, 27, p. 202, 1904—part, Samaipata; Hellmayr, *Nov. Zool.*, 12, p. 270, 1905—part, eastern Bolivia; idem, *l.c.*, 28, pp. 273, 276, 1921—Samaipata, Valle Grande, and San José (Mizque), Bolivia (crit.); Chapman and Griscom, *Bull. Amer. Mus. N. H.*, 50, p. 295, 1924—eastern Bolivia and northwestern Argentina, south to Santiago del Estero and Chaco (crit.); Wetmore, *Bull. U. S. Nat. Mus.*, 133, p. 247, 1926—Resistencia and Las Palmas, Chaco, and Riacho Pelaga, Formosa; Friedmann, *Bull. Mus. Comp. Zool.*, 68, p. 210, 1927—Concepción, Tucumán (crit.); Laubmann, *Wissens. Erg. Deuts. Gran Chaco Exp.*, Vögel, p. 317, 1930—Villa Montes,

<sup>1</sup> *Troglodytes musculus rex* Berlepsch and Leverkühn: Very similar to *T. m. chilensis*, but distinguished by much longer, heavier bill and brighter isabelline under parts. Wing (of adult males), 51–56; tail, 44–50; bill, 13–14½.

Birds from Bolivia are fairly uniform and can hardly be confused with *T. m. musculus* by reason of the decidedly isabelline tinge of the under parts, which results in a pinkish rather than an ochraceous appearance. Specimens from northwestern Argentina, however, form a complete transition between the two types of coloration. While a good many cannot satisfactorily be separated from the general run of Bolivian birds, others are strictly intermediate, and others again match certain unusually light-colored individuals of the Brazilian House Wren. The intergradation is so gradual that it is utterly impossible to draw a sharp and fast line between *musculus* and *rex*. This is particularly the case in the northeastern parts of Argentina, in Chaco and Formosa, where the range of *T. m. rex* adjoins that of *T. m. musculus* found on the other side of the Rio Paraguay.

*Material examined.*—Bolivia: Samaipata, 5; San José, Mizque, 1; La Crecencia, Santa Cruz, 1; Parotani, Cochabamba, 6; Villa Montes, Tarija, 2.—Argentina: Calilegua, Jujuy, 2; Tafi Viejo, Tucumán, 4; Concepción, Tucumán, 8; Manantial, Tucumán, 1; San José, Formosa, 3; Lapango, Formosa, 1.

Tarija, and La Crecencia, Santa Cruz, Bolivia (crit.); Deautier, El Hornero, 4, p. 301, 1929 (range in Argentina).

*Troglodytes musculus guariza* (not of Des Murs) Dabbene, Anal. Mus. Nac. Hist. Nat. Buenos Aires, 18, p. 355, 1910—part, Tucumán, Salta, and Chaco; Dinelli, El Hornero, 2, p. 313, 1922—Tucumán (nesting habits).

*Troglodytes musculus wiedi* (not *Thryothorus wiedi* Berlepsch) Hellmayr, Nov. Zool., 28, p. 276, 1921—part, Chaco, Jujuy, and Tucumán; Giacomelli, El Hornero, 3, p. 67, 1923—La Rioja; Laubmann, Wissens. Erg. Deuts. Gran Chaco Exp., Vögel, p. 316, 1930—San José and Lapango, Formosa (crit.).

*Range*.—Central and eastern Bolivia, in depts. of Cochabamba, Santa Cruz, Chuquisaca (Sucre), and Tarija, and northwestern Argentina, south to San Juan, La Rioja, and Catamarca, east to Santiago del Estero, Chaco, and Formosa.

10: Bolivia (Parotani, Cochabamba, 1); Argentina (Calilegua, Jujuy, 1; Concepción, Tucumán, 8).

**\**Troglodytes musculus carabayae* Chapman and Griscom.<sup>1</sup>  
CARABAYA HOUSE WREN.**

*Troglodytes musculus carabayae* Chapman and Griscom, Bull. Amer. Mus. N. H., 50, p. 296, 1924—Santo Domingo, southeastern Peru (type in the American Museum of Natural History, New York).

*Troglodytes musculus audax* (not of Tschudi) Berlepsch and Stolzmann, Proc. Zool. Soc. Lond., 1896, p. 328—La Merced, Chanchamayo; Chapman, Bull. U. S. Nat. Mus., 117, p. 103, 1921—part, Santa Ana, San Miguel Bridge, and Torontoy, Dept. Cuzco, Peru (crit.).

*Range*.—Tropical and Subtropical zones of central and south-eastern Peru, in depts. of Junín, Cuzco, and Puno.

2: Peru (San Ramón, Dept. Junín, 2).

<sup>1</sup> *Troglodytes musculus carabayae* Chapman and Griscom: Similar to *T. m. clarus*, but lower surface more strongly as well as more evenly tinged with buff, without the whitish areas on throat and middle of belly, and upper parts darker, more sooty brown, with distinct, though narrow, dusky bars on the back. Still closer to *T. m. audax*, of the Peruvian coast region, but darker above and with the back distinctly, though narrowly, barred with dusky. Wing, 52–55, (female) 53–54; tail, 43–45, (female) 39–43; bill, 12½–14½.

This form passes gradually into *T. m. puna*, as we ascend to higher altitudes. Birds taken in the Marcapata Valley at an elevation of 3,000 feet agree in every respect with specimens from similar altitudes in the valleys of the San Gaban and Inambari rivers, whereas others secured in the Lower Subtropical zone of Marcapata at elevations of 6,000 and 7,000 feet, though of equally small size, are much more richly colored underneath and closely approach the Temperate zone form (*puna*). Similar conditions obtain in the Santa Ana Valley, Dept. Cuzco, and in northwestern Bolivia, Dept. La Paz. Two skins from the Chanchamayo Valley (San Ramón) are somewhat paler beneath than the series from southeastern Peru, though the variation is rather insignificant.

*Material examined*.—Peru: San Ramón, Dept. Junín, 2; La Aroya, Inambari Valley (alt. 3,000 ft.), 2; Río San Gaban (alt. 2,000 to 2,500 ft.), Carabaya, 2; Marcapata Valley (alt. 3,000 ft.), 2.



**\*Troglodytes musculus puna Berlepsch and Stolzmann.<sup>1</sup> PUNA HOUSE WREN.**

*Troglodytes musculus puna* Berlepsch and Stolzmann, Proc. Zool. Soc. Lond., 1896, p. 329—Ingapirca and Queta, Dept. Junín, Peru (type from Ingapirca in Warsaw Museum; cf. Sztolcman and Domaniewski, Ann. Zool. Mus. Pol. Hist. Nat., 6, p. 154, 1927); idem, Ornith., 13, p. 126, 1906—Puno, Dept. Puno, Peru; Hellmayr, Nov. Zool., 28, pp. 273, 276, 1921—La Paz, Chulumani, and Sicasica, Bolivia (crit., range); Chapman, Bull. U. S. Nat. Mus., 117, p. 102, 1921—Ollantaytambo, Chospiyoc, Huacacando Canyon, Pisac, Calca, Tica-Tica, Cuzco, and La Raya, Urubamba, Peru (crit.); idem and Griscom, Bull. Amer. Mus. N. H., 50, p. 297, 1924—Temperate and Puna zones of Peru and northern Bolivia (crit.); Zimmer, Field Mus. Nat. Hist., Zool. Ser., 17, p. 407, 1930—La Quinua, Junín, and near Huánuco, Puno, and Huánuco Viejo, Huánuco, Peru (crit.).

*Troglodytes fulva* (not *Motacilla furva* Gmelin) Lafresnaye and d'Orbigny, Syn. Av., 1, in Mag. Zool., 7, cl. 2, p. 26, 1837—prov. Sicasica and Yungas, Bolivia.

*Troglodytes furvus* Sclater and Salvin, Proc. Zool. Soc. Lond., 1879, p. 593—part, La Paz, Yungas, and Sicasica (ex d'Orbigny).

*Troglodytes platensis* (not *Sylvia platensis* Latham) d'Orbigny, Voy. Amér. Mérid., Ois., p. 231, 1838—var. B, part, La Paz, Yungas, Sicasica (spec. in Paris Museum examined).

*Troglodytes tessellatus* (not of Lafresnaye and d'Orbigny) Sclater and Salvin, Proc. Zool. Soc. Lond., 1867, p. 984; 1868, p. 569—Arequipa, Peru; idem, l.c., 1873, p. 780—Paucartambo, Dept. Cuzco, Peru; Sharpe, Cat. Bds. Brit. Mus., 6, p. 259, 1881—part, Arequipa and Paucartambo; Taczanowski, Orn. Pér., 1, p. 522, 1884—part, Arequipa and Paucartambo; Tristram, Cat. Coll. Bds., p. 167, 1889—Arequipa.

*Troglodytes musculus tectellatus* Oberholser, Proc. U. S. Nat. Mus., 27, p. 203, 1904—Peru (in part).

<sup>1</sup>*Troglodytes musculus puna* Berlepsch and Stolzmann: In general coloration nearest to *T. m. musculus*, but larger, with longer, heavier feet; under parts deeper cinnamon buff or ochraceous; dorsal surface less rufescent, particularly on the rump, and as a rule barred with dusky on the back; tail lighter rufous.

While easily recognizable among the other Peruvian races by its richly colored under parts, this form presents considerable variation in size. Birds from Ingapirca (alt. 12,000 ft.), Ollachea, Carabaya (alt. 11,500 ft.), Peru, and Chicani and La Paz (alt. 10,000–11,000 ft.), Bolivia, are largest, the wings of adult males measuring from 57 to 61 mm. An adult male from Cajabamba (alt. 9,250 ft.), with a wing of 59 mm., is similar, while specimens from the vicinity of Cuzco (Anta and Lucre, alt. 11,000–12,000 ft.) average somewhat smaller (wing of males 53–56, once 59). Birds from lower altitudes in the Bolivian Department of La Paz (Songo, alt. 3,300 ft.; San Antonio; Pucyuni) are still smaller (wing, 50–54), paler below, and closely approach *T. m. carabayae*, to which they should perhaps be referred. Bolivian records from Mapiri (*T. musculus* Allen, Bull. Amer. Mus. N. H., 2, p. 79, 1889) and Ramosani and Caguarani (*T. furvus* Sclater and Salvin, Proc. Zool. Soc. Lond., 1879, p. 593) pertain to these intergrades.

*Material examined.*—Peru: Molinopampa, San Martín, 1; mountains east of Balsas, 1; Cajabamba, 1; Huánuco (as specified above), 9; Ingapirca, Junín, 1; La Quinua, Junín, 2; Puno, 2; Ollachea, near Macusani, Carabaya, 4; Lucre, Cuzco, 5; Anta, Cuzco, 8.—Bolivia: La Paz, 6; Chicani, 2; Chulumani, 1; Sicasica, 1; Chaco, 2; Songo, 1; San Antonio, 1; Pucyuni, 1.

*Troglodytes musculus* (not of Naumann) Salvin, Nov. Zool., 2, p. 2, 1895—Cajamarca, Cajabamba, and Malca, Peru (spec. examined).

*Troglodytes audax* (not of Tschudi) Taczanowski, Proc. Zool. Soc. Lond., 1874, p. 505—Maraynioc, Huanta, Monterico; idem, Orn. Pér., 1, p. 525, 1884—part, Tarma, Junín, Maraynioc, Ninarupa, Auquimarca, Huanta, Monterico, etc.

*Troglodytes musculus audax* Berlepsch and Stolzmann, Ornith., 13, p. 66, 1906—Coracora, Ayacucho, Peru.

*Range*.—Temperate and Puna zones of Peru, from depts. of Cajamarca and San Martín southwards, and northwestern Bolivia (Dept. La Paz).

16: Peru (Molinopampa, east of Chachapoyas, Dept. San Martín, 1; mountains east of Balsas, alt. 10,000 ft., Dept. Cajamarca, 1; Pano Mountains, Huánuco, 1; Huánuco Viejo, 2; Huánuco Mountains, 6; La Quinua, Junín, 2; Puno, 3).

**\**Troglodytes musculus audax* Tschudi.<sup>1</sup> WEST PERUVIAN HOUSE WREN.**

*Troglodytes audax* Tschudi, Arch. Naturg., 10, (1), p. 282, 1844—Peru; idem, Unters. Faun. Peru., Aves, p. 185, 1846—"forest region of northeastern Peru," errore, = coast of Peru (type in Neuchâtel Museum examined; cf. Berlepsch and Hellmayr, Journ. Orn., 53, p. 6, 1905).

*Troglodytes murinus* Lesson, Rev. Zool., 7, No. 12, Dec., p. 434, 1844—"le Pérou"; idem, Oeuvr. Buffon, éd. Lévêque, 20 (Descr. Mamm. et Ois.), p. 291, 1847—"au Pérou" (location of type unknown).<sup>2</sup>

*Troglodytes musculus enochrus* Oberholser, Proc. U. S. Nat. Mus., 27, p. 207, 1904—Lima, Peru (type in U. S. National Museum).

*Troglodytes furvus* (not *Motacilla furva* Gmelin) Sclater, Proc. Zool. Soc. Lond., 1866, p. 96—Lima (breeding).

*Troglodytes musculus* (not of Naumann) Berlepsch and Stolzmann, Proc. Zool. Soc. Lond., 1892, p. 373—Lima (eggs descr.; crit.).

*Troglodytes musculus audax* Stone, Proc. Acad. Nat. Sci. Phila., 51, p. 311, 1899—Callao, Peru (crit.); Chapman and Griscom, Bull. Amer. Mus. N. H., 50, p. 297, 1924—arid west coast of Peru from Trujillo to Pisco (crit.); Zimmer, Field Mus. Nat. Hist., Zool. Ser., 17, p. 406, 1930—Vitarte, Santa Eulalia, and Matucana, Dept. Lima, Peru (crit.).

<sup>1</sup> *Troglodytes musculus audax* Tschudi: Similar to *T. m. albicans*, of western Ecuador, but with considerably longer tail (38–45 mm.) and under parts more deeply as well as more uniformly ochraceous, lacking any distinct whitish area on throat or middle of belly. Not unlike *T. m. musculus*, but above much more grayish brown with less rufescent wings and tail and much less rufous rump. Easily distinguished from *T. m. puna* by much less richly colored under parts and generally smaller size.

*Additional material examined*.—Lima: Lima, 3; Chorillos, 1.

<sup>2</sup> The description corresponds exceedingly well to the Peruvian coast form. The type, whose whereabouts is unknown, probably originated in Callao, whence Lesson described a number of new birds.

*Range*.—Arid west coast of Peru, from Trujillo south to Pisco.

10: Peru (Hacienda Llagueda, inland of Trujillo, Dept. Libertad, 3; Hacienda Limón, ten miles west of Balsas, Dept. Cajamarca, 1; Vitarte, 2; Santa Eulalia, 2; Matucana, 2).

**\*Troglodytes musculus tecellatus Lafresnaye and d'Orbigny.<sup>1</sup>**

**BARRED-BACKED HOUSE WREN.**

*Troglodytes tecellatus* Lafresnaye and d'Orbigny, Syn. Av., 1, in Mag. Zool., 7, cl. 2, p. 25, 1837—Tacna, Peru (type in Paris Museum examined); d'Orbigny, Voy. Amér. Mérid., Ois., p. 232, 1839—Tacna Valley.

*Troglodytes tessellatus* Taczanowski, Orn. Pér., 1, p. 522, 1884—part, Tacna; Chapman and Griscom, Bull. Amer. Mus. N. H., 50, p. 298, 1924—southwestern Peru and northwestern Chile (crit.).

*Troglodytes musculus tecellatus* Stone, Proc. Acad. Nat. Sci. Phila., 51, p. 311, 1899—Tacna (diag.); Oberholser, Proc. U. S. Nat. Mus., 27, p. 203, 1904—part, Tacna; Hellmayr, Nov. Zool., 12, p. 270, 1905—Tacna (crit.); idem, l.c., 28, p. 271, 1921—Tacna and Asapa, near Arica, Chile (crit.); idem, Field Mus. Nat. Hist., Zool. Ser., 19, p. 38, 1932—northern Chile (crit.).

*Range*.—River valleys in the coast district of extreme southwestern Peru (depts. of Arequipa and Moquegua) and extreme northern Chile (Tacna; Chacalluta and Asapa, near Arica).

2: Chile (Chacalluta, near Arica, 2).

**\*Troglodytes musculus atacamensis Hellmayr.<sup>2</sup> ATACAMA HOUSE WREN.**

<sup>1</sup>*Troglodytes musculus tecellatus* Lafresnaye and d'Orbigny: Nearest to *T. m. audax*, but more grayish above with very distinct, broad, blackish bars, becoming evanescent on crown and hindneck, and much less rufescent suffusion on the rump; tail very slightly rufescent with wider black bars; under parts much paler, nearly whitish, and the lower tail coverts broadly barred with black and white instead of uniform deep ochraceous. Wing (males), 53–55; tail, 40–44; bill, 14.

Birds from Moquegua agree with typical Chilean examples, while those from the coast of Arequipa (Cocachacra, Lomas) are even more heavily banded with black. A specimen from Asapa (near Arica) is intermediate to *T. m. atacamensis* by having only the scapulars conspicuously barred, whereas in the median portion of the back these markings are quite obsolete.

*Material examined*.—Peru: Lomas, near Vitor, Arequipa, 2; Cocachacra, Arequipa, 4; Moquegua, Moquegua, 2.—Chile: Tacna, 2; Chacalluta, 2; Asapa, near Arica, 1.

<sup>2</sup>*Troglodytes musculus atacamensis* Hellmayr: Differs from *T. m. chilensis*, of the more southern parts of Chile, by decidedly slenderer, also somewhat longer bill, and paler coloration. The upper parts are (unbarred) light grayish brown, much less sooty, rarely with a slight rufescent tinge; the rump and upper tail coverts lighter rufous; the wings and tail less rufescent; the under parts paler isabelline with the throat and middle of the abdomen more whitish, and the flanks and crissum lighter ochraceous. It approaches *T. m. tecellatus* in grayish back and shape of bill, but may be distinguished by brighter rufous rump, more rufescent, less broadly barred tail, less whitish ventral surface, and by lacking all trace of blackish bars on either back or upper tail coverts. Wing (adult males) 51–54, (female) 50; tail, 43–47; bill, 13–14½.

*Additional material*.—Coquimbo: Tofo, 3.

*Troglodytes musculus atacamensis* Hellmayr, Field Mus. Nat. Hist., Zool. Ser., 12, p. 74, 1924—Rio Loa, Antofagasta, Chile (type in Field Museum); idem, l.c., 19, p. 37, 1932—northern Chile, from Coquimbo to Antofagasta (monog.).

*Troglodytes furrus* (not *Motacilla furva* Gmelin) Salvin, Proc. Zool. Soc. Lond., 1883, p. 419—Coquimbo.

*Troglodytes hornensis* (not of Lesson) Philippi, Ornith., 4, p. 158, 1888—Antofagasta.

*Troglodytes musculus chilensis* (not of Lesson) Chapman and Griscom, Bull. Amer. Mus. N. H., 50, p. 299, 1924—part, Tofo, sixty miles north of Coquimbo.

*Troglodytes platensis* (not *Sylvia platensis* Latham) Gigoux, Rev. Chil. Hist. Nat., 28, p. 86, 1924—Caldera, Atacama.

*Range*.—Northern Chile, from Coquimbo north to Antofagasta.

11: Chile, Atacama (Caldera, 6; Ramadilla, Copiapó Valley, 3); Antofagasta (Rio Loa, 2).

**\*Troglodytes musculus chilensis Lesson. CHILEAN HOUSE WREN.**

*Troglodytes chilensis* Lesson, Voyage Coquille, Zool., 1, (2), p. 665, April, 1830—La Concepción, Chile (location of type unknown).<sup>1</sup>

*Troglodytes magellanicus* Gould, Proc. Zool. Soc. Lond., 4, "1836," p. 88, pub., Feb., 1837—"in Fretu Magellanico" (type apparently lost, formerly in collection of Zoological Society of London); Darwin, Zool. Beagle, 3, p. 74, 1839—part, Patagonia (Bahia Blanca), Tierra del Fuego, and central Chile; Fraser, Proc. Zool. Soc. Lond., 11, p. 111, 1843—Chile (eggs descr.); Hartlaub, Naumannia, 3, p. 211, 1853—Valdivia; Sclater, Proc. Zool. Soc. Lond., 1867, pp. 321, 337—Chile; Sclater and Salvin, Ibis, 1868, p. 185—Patagonia; idem, Ibis, 1870, p. 499—Sandy Point, Straits of Magellan; Landbeck, Zool. Gart., 18, p. 241, 1877—Chile (habits); E. Reed, Anal. Univ. Chile, 93, p. 199, 1896—Chile; Bullock, Rev. Chil. Hist. Nat., 33, p. 185, 1929—Angol, Malleco, Chile.

*Troglodytes pallida(us)* Lafresnaye and d'Orbigny, Syn. Av., 1, in Mag. Zool., 7, cl. 2, p. 25, 1837—Patagonia=Rio Negro (type in Paris Museum examined); d'Orbigny, Voy. Amér. Mérid., Ois., p. 234, 1839—Rio Negro; Hellmayr, Nov. Zool., 28, p. 270, 1921—Patagonia (crit.).

*Thriothorus rosaceus* Lesson, Rev. Zool., 3, p. 262, 1840—part, Chile (cf. Hellmayr, Verh. Orn. Ges. Bay., 14, p. 128, footnote 1, 1919).

*Troglodytes guariza* Des Murs, in Gay, Hist. fis. pol. Chile, Zool., 1, p. 312, 1847—based on *Troglodytes chilensis* Lesson, from La Concepción, Chile.

*Troglodytes musculus acosmus* Oberholser, Proc. U. S. Nat. Mus., 27, p. 204, 1904—central Chile (type in U. S. National Museum examined).

<sup>1</sup> The type is not in the Paris Museum, but may be preserved in the collection of the Naval Medical School at Rochefort, France. The description leaves no doubt whatever as to its being referable to the Chilean House Wren. Cf. Hellmayr, Nov. Zool., 28, p. 275, footnote 3, 1921.

*Troglodytes platensis* (not *Sylvia platensis* Latham) d'Orbigny, Voy. Amér. Mérid., Ois., p. 231, 1839—var. A, part, Valparaíso; Des Murs, in Gay, Hist. fis. pol. Chile, Zool., 1, p. 311, 1847—Chile; Boeck, Naumannia, 1855, p. 500—Valdivia, Chile; Germain, Proc. Bost. Soc. N. H., 7, p. 310, 1860—Santiago (nesting habits); Philippi, Anal. Univ. Chile, 31, p. 256, 1868—Chile; Lataste, Act. Soc. Scient. Chile, 3, p. CXV, 1893—Ninhue, Maule, Chile; Waugh and Lataste, l.c., 4, p. LXXXV, 1894—Peñaflo, Santiago, Chile; idem, l.c., p. CLXXI, 1894—San Alfonso, Quillota, Chile.

*Troglodytes hornensis* (not of Lesson) Sclater, Cat. Coll. Amer. Bds., p. 23, 1862—Chile; Cabanis and Reichenow, Journ. Orn., 24, p. 320, 1876—Straits of Magellan; Sharpe, Cat. Bds. Brit. Mus., 6, p. 257, 1881—Chile and Patagonia north to Mendoza; Ridgway, Proc. U. S. Nat. Mus., 12, p. 131, 1889—Laredo, Straits of Magellan; Oustalet, Miss. Sci. Cap Horn, 6, p. B 74, 1891—Orange Bay and Punta Arenas, Patagonia; Schalow, Zool. Jahrb. (Syst.), Suppl., 4, p. 730, 1898—Cabo Espiritu Santo, Tierra del Fuego; Albert, Anal. Univ. Chile, 103, p. 215, 1899—Chile (excl. notes on habits); Salvadori, Ann. Mus. Civ. Genova, 40, p. 618, 1900—Punta Arenas; Arribáizaga, Anal. Mus. Nac. Hist. Nat. Buenos Aires, 8, p. 166, 1902—Lago General Paz, Chubut; Dabbene, l.c., p. 359, 1902—Magellan Strait; Crawshaw, Bds. Tierra del Fuego, p. 40, 1907—San Sebastian, Sara, and McClelland Settlement.

*Troglodytes musculus hornensis* Stone, Proc. Acad. Nat. Sci. Phila., 51, p. 310, 1899—Patagonia and Chile; Oberholser, Proc. U. S. Nat. Mus., 27, p. 203, 1904—extreme southern Chile; Dabbene, Anal. Mus. Nac. Hist. Nat. Buenos Aires, 18, p. 356, 1910—part, Patagonia, Tierra del Fuego, and Chubut; Sanzin, El Hornero, 1, p. 151, 1918—Mendoza.

*Troglodytes fureus* (not *Motacilla furva* Gmelin) E. Reed, Anal. Univ. Chile, 49, p. 542, 1877—Cauquenes, Colchagua, Chile; Durnford, Ibis, 1877, p. 32—Chubut; idem, Ibis, 1878, p. 392—Chubut (breeding); Doering, in Roca, Inf. Of. Exp. Rio Negro, Zool., p. 36, 1881—part, Rio Colorado and Rio Negro; Sclater and Hudson, Arg. Orn., 1, p. 13, 1888—part, Patagonia; Burmeister, Anal. Mus. Nac. Buenos Aires, 3, p. 244, 1888—Patagonia; Gosse, in Fitzgerald, The Highest Andes, p. 351, 1899—Lujan, Mendoza.

*Troglodytes musculus magellanicus* Hellmayr, Nov. Zool., 28, pp. 270, 276, 1921—Patagonia (crit.); Peters, Bull. Mus. Comp. Zool., 65, p. 328, 1923—Huanuluan, Paso Flores (Limay River), Puesto Horno, and Bariloche, western Patagonia; Chapman and Griscom, Bull. Amer. Mus. N. H., 50, p. 301, 1924—from Cape Horn north to Chiloé, Chile, and the Rio Negro (crit.); Marelli, Mem. Min. Obr. Pub. (Buenos Aires) for 1922–23, p. 653, 1924—Rosas, Prov. Buenos Aires; Daguerre, El Hornero, 2, p. 270, 1922—Rosas, Prov. Buenos Aires (winter visitor; spec. examined); Wilson, l.c., 3, p. 360, 1926—Venado Tuerto, southern Santa Fé; Wetmore, Univ. Calif. Pub. Zool., 24, p. 454, 1926—Arroyo Salado, Rio Negro; Stone, Rep. Princet. Univ. Exp. Patag., 2, p. 819, 1927—Punta Arenas, Rio Coy, Coy Inlet, Rio Chico, and Cape Fairweather, Patagonia; Pereyra, El Hornero, 4, p. 32, 1927—San Rafael, Mendoza; Deautier, l.c., 4, p. 301, 1929—Patagonia (range).

*Troglodytes musculus chilensis* Hellmayr, Nov. Zool., 28, pp. 275, 276, 1921—Valparaiso, Chile (range, crit.); Paessler, Journ. Orn., 70, p. 472, 1922—Coronel, Chile (nesting habits); Chapman and Griscom, Bull. Amer. Mus. N. H., 50, p. 299, 1924—part, Argentina north to Mendoza, and Chile excl. Coquimbo (crit.); Wetmore, Bull. U. S. Nat. Mus., 133, p. 348, 1926—Concon (Chile), Mendoza (Potrerillos and Tunuyán), and Victorica, Pampa; idem, Univ. Calif. Pub. Zool., 24, p. 454, 1926—Lago Fetalauquen, Chubut; Pereyra, El Hornero, 4, p. 32, 1927—San Rafael, Mendoza; Hellmayr, Field Mus. Nat. Hist., Zool. Ser., 19, p. 34, 1934, 1932—Chile (monog., range).

*Cistothorus platensis* (errore) Barros, Rev. Chil. Hist. Nat., 24, p. 148, 1920—Nilahue, Curicó; idem, l.c., 25, p. 187, 1921—Cordillera of Aconcagua, Chile; Housse, l.c., 28, p. 48, 1924—Isla La Mocha, Arauco; idem, l.c., 29, p. 146, 1925—San Bernardo, Santiago; Jaffuel and Pirion, l.c., 31, p. 108, 1927—Marga-Marga Valley, Valparaiso, Chile.

**Range.**—Chile north to Aconcagua Province; Tierra del Fuego; southern Argentina north to the Rio Colorado, in the west as far north as Mendoza; migrating in winter to Buenos Aires, Santa Fé, and Entre Rios in Argentina, and to Atacama in Chile.<sup>1</sup>

40: Chile (Caldera, Atacama, 1; Olmué, Valparaiso, 2; Baños de Cauquenes, Colchagua, 3; Hacienda Gualpencillo, Concepción, 3; Curacautin, Malleco, 2; Rio Colorado, Malleco, 1; Villa Portales, Cautin, 1; Lake Gualletué, Cautin, 1; Mafil, Valdivia, 8; Puerto Montt, Llanquihue, 2; Rio Nirehuau, 2; Quellon, Chiloé Island, 8; Melinka, Ascension, Guaitecas Islands, 4); Argentina (El Inca, Bonifacio, Prov. Buenos Aires, 1; Las Rosas, Prov. Santa Fé, 1).

**\*Troglodytes musculus bonariae** Hellmayr.<sup>2</sup> BUENOS AIRES HOUSE WREN.

<sup>1</sup> The reasons for not recognizing *T. m. magellanicus* are explained at length in the author's "Birds of Chile" (Field Mus. Nat. Hist., Zool. Ser., 19, pp. 35–36, 1932), to which the reader is referred.

This race of the South American House Wren breeds throughout the greater part of central and southern Chile and in southern Argentina, north at least to the Rio Negro and its tributaries. In winter it migrates northwards, and is then met with in the range of *T. m. bonariae*. Such specimens of undoubted southern origin have been examined by us from Rosas, Prov. Buenos Aires (June 20, 1920. J. B. Daguerre), El Inca, Bonifacio, Prov. Buenos Aires (June 7, 1916. Robin Kemp), and Las Rosas, Prov. Santa Fé (October 25, 1916. Robin Kemp). Other instances are recorded by Messrs. Chapman and Griscom.

**Additional material examined.**—Chile: Concon, Valparaiso, 2; Valdivia, 3; Ancud, Chiloé, 3; False Cape Horn, 4; Londonderry Island, 1.—Argentina: Punta Arenas, 2; Neuquen City, 2; Rio Trafal, Neuquen, 1; Laguna del Rio Limay, 1; Lago Nahuel Huapi, 3; Rio Negro, 2; Huanuluan, Rio Negro, 6.

<sup>2</sup> *Troglodytes musculus bonariae* Hellmayr: Most nearly related to *T. m. chilensis*, but upper parts darker, more sooty; the back at least with traces of bars; rump and tail much less rufescent, cinnamon-brown rather than ochraceous-tawny; under tail coverts regularly barred with black and white.

This is the House Wren breeding in Uruguay and the Argentine provinces of Buenos Aires and Entre Rios, where it is reported by local observers to be a resident.

*Troglodytes musculus bonariae* Hellmayr, Anz. Orn. Ges. Bay., 1, No. 1, p. 2, Feb., 1919—La Plata, Buenos Aires (type in Munich Museum); idem, Verh. Orn. Ges. Bay., 14, p. 128, 1919—northeastern Argentina, Uruguay, and extreme southern Brazil (crit.); Tremoleras, El Hornero, 2, p. 22, 1920—Montevideo, Canelones, San José, Flores, Colonia, Maldonado, and Florida, Uruguay; Renard, l.c., 2, p. 60, 1920—Cañuelas, Buenos Aires; Daguerre, l.c., 2, p. 270, 1922—Rosas, Buenos Aires (resident; spec. examined); Serié and Smyth, l.c., 3, p. 51, 1923—Santa Elena, Entre Ríos (resident; nest and eggs descr.); Pereyra, l.c., 3, p. 170, 1923—Zelaya, Buenos Aires; Wilson, l.c., 3, p. 360, 1926—Venado Tuerto, southern Santa Fé; Hellmayr, Nov. Zool., 28, pp. 275, 276, 1921—Buenos Aires and Corrientes (crit., range); Marelli, Mem. Min. Obr. Publ. for 1922-23, p. 653, 1924—Prov. Buenos Aires (La Plata, Isla de Martín García) and Entre Ríos; Chapman and Griscom, Bull. Amer. Mus. N. H., 50, p. 299, 1924—from southeastern Brazil to Buenos Aires (crit.); Wetmore, Bull. U. S. Nat. Mus., 133, p. 348, 1926—Prov. Buenos Aires and Uruguay (nest and eggs descr.); Laubmann, Wissens. Erg. Deuts. Gran Chaco Exp., p. 316, 1930—Estancia La Germania, Santa Fé (crit.); Deautier, El Hornero, 4, p. 301, 1929—Rio de la Plata, Entre Ríos, Uruguay, and southern Brazil.

*Thriothorus rosaceus* Lesson, Rev. Zool., 3, p. 262, 1840—part, La Plata (probably ex Azara's "Todo vox").

*Troglodytes hiemalis* (not of Vieillot) Lafresnaye and d'Orbigny, Syn. Av., 1, in Mag. Zool., 7, cl. 2, p. 26, 1837—part, Buenos Aires and Corrientes (spec. in Paris Museum examined).

*Troglodytes platensis* (not *Sylvia platensis* Latham) d'Orbigny, Voy. Amér. Mérid., Ois., p. 231, 1838—var. A, part, Buenos Aires and Corrientes; Burmeister, Journ. Orn., 8, p. 252, 1860—Argentina (in part); idem, Reise La Plata St., 2, p. 476, 1861—Argentina (in part); Sternberg, Journ. Orn., 17, p. 268, 1869—Buenos Aires (nesting); Holtz, l.c., 18, p. 10, 1870—Buenos Aires (eggs descr.); Barrows, Bull. Nutt. Orn. Cl., 8, p. 86, 1883—Concepción del Uruguay, Entre Ríos, and Sierra de la Ventana, Buenos Aires (nesting).

*Thryothorus platensis* Berlepsch, Journ. Orn., 21, p. 230, 1873—Blumenau, Santa Catharina (spec. examined).

*Troglodytes magellanicus* (not of Gould, 1837) Darwin, Zool. Beagle, 3, p. 74, 1839—part, banks of the La Plata.

*Troglodytes furvus* (not *Motacilla furva* Gmelin) Sclater and Salvin, Proc. Zool. Soc. Lond., 1869, p. 158—Conchitas, Buenos Aires; Durnford, Ibis, 1876, p. 157—Buenos Aires (eggs descr.); idem, Ibis, 1877, p. 167—

A specimen from Corrientes (no date) and two adults from Estancia La Germania, Santa Fé (July, August), agree with the series from that region. From southern Brazil we have seen only winter birds (June). With the exception of a female from Taquara do Mundo Novo, which is somewhat intermediate to *T. m. musculus*, they are perfectly typical of *bonariae*, yet it remains to be ascertained whether this race of the House Wren breeds in southern Brazil.

*Material examined.*—Brazil: Joinville, 2; Blumenau, Santa Catharina, 1; Taquara do Mundo Novo, Rio Grande do Sul, 2.—Uruguay (as specified above): 12.—Argentina: Corrientes, 1; La Plata, 4; Barracas al Sud, Buenos Aires, 4; Rosas, Buenos Aires, 1 (male adult, June 15, 1920. J. B. Daguerre).

Baradero, Buenos Aires; Gibson, *Ibis*, 1880, p. 31—Cape San Antonio, Buenos Aires (habits); Doering, in Roca, *Inf. Of. Exp. Rio Negro*, Zool., p. 36, 1881—part, Azul, Carhué, and Nueva Roma, Prov. Buenos Aires; White, *Proc. Zool. Soc. Lond.*, 1882, p. 593—San José de Flores, Buenos Aires; Dalgleish, *Proc. Roy. Phys. Soc. Edin.*, 8, p. 81, 1884—Est. de la Tala, Uruguay (habits, nest, and eggs); Holmberg, *Act. Acad. Ci. Cordoba*, 5, p. 80, 1884—Cerros Piedra Movediza, La Tinta, and Cuchilla de Las Punas, Prov. Buenos Aires; Sclater and Hudson, *Arg. Orn.*, 1, p. 13, 1888—Argentina (in part); Holland, *Ibis*, 1890, p. 425; 1892, p. 194—Est. Espartillar, Prov. Buenos Aires (habits); Aplin, *Ibis*, 1894, p. 163—Uruguay; Ihering, *Ann. Est. Rio Grande do Sul*, 16, p. 116, 1899—Mundo Novo, Barra do Rio Camaquã, and Pedras Brancas, Rio Grande do Sul; Gibson, *Ibis*, 1918, p. 378—Cape San Antonio, Prov. Buenos Aires.

*Troglodytes fuscus wiedi* (not *Thryothorus wiedi* Berlepsch, 1873) Berlepsch and Ihering, *Zeits. Ges. Orn.*, 2, p. 113, 1885—Taquara, Rio Grande do Sul; Oberholser, *Proc. U. S. Nat. Mus.*, 27, p. 202, 1904—Santa Catharina, Brazil (crit.); Hellmayr, *Nov. Zool.*, 12, p. 270, 1905—part, Santa Catharina and Rio Grande do Sul.

*Troglodytes musculus hornensis* (not of Lesson) Oberholser, *Proc. U. S. Nat. Mus.*, 27, p. 203, 1904—part, Buenos Aires; Hartert and Venturi, *Nov. Zool.*, 16, p. 164, 1909—Barracas al Sud, Buenos Aires; Dabbene, *Anal. Mus. Nac. Hist. Nat. Buenos Aires*, 18, p. 356, 1910—part, Barracas al Sud.

*Troglodytes hornensis* Grant, *Ibis*, 1911, p. 85—Los Ynglases, Ajó, Buenos Aires.

*Troglodytes musculus guariza* (not of Des Murs) Dabbene, *Anal. Mus. Nac. Hist. Nat. Buenos Aires*, 18, p. 355, 1910—part, Prov. Buenos Aires; idem, *El Hornero*, 1, p. 241, 1919—Isla Martín García, Buenos Aires.

**Range.**—Eastern Argentina, in provinces of Buenos Aires, Santa Fé, Entre Ríos, and Corrientes; Uruguay; extreme southern Brazil (states of Rio Grande do Sul and Santa Catharina).

14: Brazil, Santa Catharina (Joinville, 2); Uruguay (Quebrada de los Cuervos, 45 km. north of Trente y Tres, 5; Trente y Tres, 1; Maldonado, 2; seven miles north of Garzón, Dept. Rocha, 1; Arazati, Dept. San José, 1; Lalata, Dept. Colonia, 1; Rio Uruguay, south-west of Dolores, Dept. Soriano, 1).

### ***Troglodytes musculus cobbi* Chubb.<sup>1</sup> FALKLAND WREN.**

*Troglodytes cobbi* Chubb, *Bull. Brit. Orn. Cl.*, 25, p. 16, 1909—Falkland Islands (type in British Museum); Chapman and Griscom, *Bull. Amer. Mus.*

<sup>1</sup>*Troglodytes musculus cobbi* Chubb: In coloration nearest to *T. m. bonariae*, but very much larger, with much stronger, longer bill; upper parts much paler; tail bands narrower and more broken; no trace of the buffy postocular streak; ventral surface less isabelline, with the flanks and under tail coverts more fulvous, less rufescent; the latter either plain or with mere suggestions of dusky bars. Wing, (adult males) 56, 57, 60, (females) 56, 58; tail, 43–45; bill, 17–18.

**Material examined.**—Falkland Islands: Kidney Island, 8; Sea Lion Island, 2.



N. H., 50, p. 302, 1924—Sea Lion and Kidney Islands (crit.); Bennett, Ibis, 1926, p. 331—Falkland Islands.

*Troglodytes musculus cobbi* Hellmayr, Nov. Zool., 28, p. 276, 1921—Falkland Islands; Wace, El Hornero, 2, p. 204, 1921—Falkland Islands.

*Range*.—Falkland Islands.

**\**Troglodytes brunneicollis cahooni* Brewster. CAHOON'S WREN.**

*Troglodytes cahooni* Brewster, Auk, 5, p. 94, 1888—near Oposura, Sonora, Mexico (types in Brewster Collection, now in Museum of Comparative Zoology, Cambridge, Mass.; cf. Bangs, Bull. Mus. Comp. Zool., 70, p. 318, 1930).

*Troglodytes brunneicollis cahooni* Oberholser, Proc. U. S. Nat. Mus., 27, p. 200, 1904—northwestern Mexico (crit.); Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 588, 1904—northern portion of Mexican plateau (monog.); Phillips, Auk, 28, p. 82, 1911—Galindo, Tamaulipas.

*Range*.—Northern portion of Mexican plateau, in states of Sonora, Chihuahua, Coahuila, Nuevo Leon, Tamaulipas, Durango, and Jalisco.

2: Chihuahua (thirty miles west of Miñaca, 1); Jalisco (Sierra Bolaños, 1).

**\**Troglodytes brunneicollis brunneicollis* Sclater. BROWN-THROATED WREN.**

*Troglodytes brunneicollis* Sclater, Proc. Zool. Soc. Lond., 26, p. 297, 1858—La Parada, six leagues from Oaxaca, Mexico (type in British Museum<sup>1</sup>); idem, l.c., 27, p. 372, 1859—Cinco Señores, Oaxaca; idem, l.c., 1862, p. 18—La Parada, Oaxaca; idem, Cat. Coll. Amer. Bds., p. 23, 1862—Cinco Señores and Jalapa, Mexico; Baird, Rev. Amer. Bds., 1, p. 144, 1864—La Parada and Orizaba; Sclater and Salvin, Exot. Orn., p. 46, pl. 23, fig. 1, 1867—part, La Parada, Orizaba, and near Jalapa, Mexico; Sumichrast, Mem. Bost. Soc. N. H., 1, p. 545, 1869—Orizaba (alt. 1,500 to 2,500 meters); Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 103, 1880—part, La Parada and Cinco Señores (Oaxaca), and alpine region of Vera Cruz; Sharpe, Cat. Bds. Brit. Mus., 6, p. 261, 1881—southern Mexico; Ferrari-Perez, Proc. U. S. Nat. Mus., 9, p. 136, 1886—Teziutlan, Puebla; Stone, Proc. Acad. Nat. Sci. Phila., 1890, p. 217—Orizaba and Popocatepetl, Vera Cruz; Cox, Auk, 12, p. 358, 1895—Mount Orizaba, Vera Cruz; Chapman, Bull. Amer. Mus. N. H., 10, p. 39, 1898—Las Vigas, Vera Cruz.

<sup>1</sup> According to information received from N. B. Kinnear, the type, along with those of several other species described by Sclater in the same paper, was purchased from Auguste Sallé by the Museum. The specimen from La Parada in the U. S. National Museum (No. 29709), claimed by Baird to be the type, certainly is wrongly labeled as such. It was collected in January, 1861, hence several years after the description was published, and is doubtless the example subsequently secured by A. Boucard, as recorded by Sclater (Proc. Zool. Soc. Lond., 1862, p. 18).

*Troglodytes brunneicollis brunneicollis* Oberholser, Proc. U. S. Nat. Mus., 27, p. 200, 1904—southern Mexico; Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 586, 1904—southern and central Mexico (monog.).

**Range.**—Southern and central parts of Mexican plateau, from San Luis Potosi, Hidalgo, Mexico, and Zacatecas south through Vera Cruz, Puebla, Morelos, Tlaxcala, and Michoacan to Colima, Guerrero, and Oaxaca.

3: Colima (Sierra Nevada de Colima, 1); Mexico (unspecified, 2).

***Troglodytes brunneicollis nitidus* Nelson.<sup>1</sup> ZEMPOALTEPEC WREN.**

*Troglodytes brunneicollis nitidus* Nelson, Proc. Biol. Soc. Wash., 16, p. 158, 1903—Mount Zempoaltepec, Oaxaca (type in U. S. National Museum); Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 588, 1904—Mount Zempoaltepec, Oaxaca.

**Range.**—Forests of Mount Zempoaltepec, Oaxaca.

***Troglodytes rufociliatus rufociliatus* Sharpe.<sup>2</sup> RUFOUS-BROWED WREN.**

*Troglodytes rufociliatus* Sharpe, Cat. Bds. Brit. Mus., 6, p. 262, 1881—upper Chirostemon Forest, Volcan de Fuego, Guatemala (type in Salvin-Godman Collection, now in British Museum); Oberholser, Proc. U. S. Nat. Mus., 27, p. 200, 1904—Guatemala and eastern Chiapas (crit.); Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 588, 1904—highlands of Guatemala and Chiapas (monog.).

*Troglodytes brunneicollis* (not of Sclater) Sclater and Salvin, Ibis, 1860, p. 273—Volcan de Fuego, Guatemala; idem, Exot. Orn., p. 46, 1867—part, Volcan de Fuego; Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 103, 1880—part, Volcan de Fuego, Guatemala.

*Troglodytes rufociliatus rufociliatus* Dickey and van Rossem, Ibis, 1929, p. 266—Chiapas (San Cristobal), Guatemala (Volcan Santa Maria), and El Salvador (Chalatenango and Los Esesmiles).

**Range.**—Upper Tropical forests of Chiapas (San Cristobal), Guatemala (Volcan de Fuego and Volcan de Santa Maria), and central northern Salvador (Chalatenango and Los Esesmiles).<sup>3</sup>

<sup>1</sup> A race of doubtful standing known only from a few worn adults and young birds.

<sup>2</sup> *Troglodytes rufociliatus*, which is autoptically unknown to the author, seems to be intermediate between *T. brunneicollis* and *T. solstitialis*, combining the barred flanks of the former with the decidedly ochraceous superciliaries of the latter, while in proportion of tail it obviously bridges the gap separating the two groups. If my surmise be correct, their relationship would more appropriately be expressed by uniting the three "species" in a single taxonomic entity.

<sup>3</sup> According to Dickey and van Rossem, birds from the interior of El Salvador agree absolutely with those from Chiapas and Volcan de Santa Maria, Guatemala, while the type of *T. rufociliatus* presents some slight differences.

**Troglodytes rufociliatus nannoides** Dickey and van Rossem.<sup>1</sup>  
VOLCAN SANTA ANA RUFOUS-BROWED WREN.

*Troglodytes rufociliatus nannoides* Dickey and van Rossem, Ibis, (12), 5, p. 265, 1929—Volcan Santa Ana, coastal range of El Salvador (type in collection of Donald R. Dickey, Pasadena, California).

*Range*.—Upper Tropical forests of the Volcan Santa Ana, in the volcanic coastal range of El Salvador (alt. 5,000–7,000 feet).

**Troglodytes monticola** Bangs.<sup>2</sup> PÁRAMO WREN.

*Troglodytes monticola* Bangs, Proc. Biol. Soc. Wash., 13, p. 106, 1899—Páramo de Chiruqua (type) and Páramo de Macotama, Santa Marta Mountains, Colombia (type in Bangs Collection, now in Museum of Comparative Zoology, Cambridge, Mass.; cf. Bangs, Bull. Mus. Comp. Zool., 70, p. 319, 1930); Allen, Bull. Amer. Mus. N. H., 13, p. 178, 1900 (ex Bangs); Oberholser, Proc. U. S. Nat. Mus., 27, p. 200, 1904—Santa Marta Moun-

<sup>1</sup>*Troglodytes rufociliatus nannoides* Dickey and van Rossem: "Similar to *T. r. rufociliatus*, but dorsal coloration decidedly darker; anterior under parts duller and less ochraceous; the flanks more heavily vermiculated with black." (Dickey and van Rossem, l.c.).

We are not acquainted with this form.

<sup>2</sup>*Troglodytes monticola* Bangs: Upper part of the head and back deep rufous brown (between Brussels brown and Prout's brown), the latter distinctly and regularly barred with black; upper tail coverts alternately banded with black and grayish brown; wing coverts somewhat duller rufescent brown than the back, with conspicuous black bars; remiges dusky, the primaries with numerous pale brownish "notches" on the outer web; tertials densely barred with black and brownish; tail feathers mouse gray with closely set, narrow, zigzag bars of blackish; broad superciliaries deep ochraceous-buff to ochraceous-tawny; sides of head even deeper ochraceous-tawny; distinct postocular streak across upper auriculars deep brown; throat and foreneck dull buckthorn brown or clay-color, rather less rufescent than sides of head, paling into pinkish buff on the abdomen; sides of breast and flanks broadly barred with black; under tail coverts with alternate black and white bars; under wing coverts buffy, freckled with dusky; faint inner margin to remiges dull grayish. Bill blackish, base of lower mandible pale brownish. Wing, 57, (female) 54–55; tail, 44–45, (female) 42–45; bill, 13½–14.

This remarkable bird, which, by reason of its closely barred sides and large dimensions, bears more resemblance to *T. brunneicollis* than to any other wren, is most likely but a highly specialized derivative of the *T. solstitialis* group. It agrees in the wide, deep-ochraceous superciliaries and the tawny-ochraceous cheeks and auriculars, as well as in lacking the concealed white spots on the uropygial feathers; but differs, of course, by much larger size, black-barred back and sides, grayish tail, more broadly black-barred under tail coverts, etc. From *T. brunneicollis* it may be distinguished by the absence of white spots on the rump; much broader, wholly uniform deep ochraceous (instead of pinkish buff grayish-edged) superciliaries, which are, moreover, extended to the sides of the neck; plain ochraceous-tawny (instead of pinkish, buff- and dusky-streaked) cheeks and auriculars; grayish, not reddish brown tail; grayish brown, black-barred (instead of decidedly rufescent) upper tail coverts; broader black bars on back and wing coverts, etc.

The occurrence in the Santa Marta region of this peculiar form, which in several respects recalls the Brown-throated Wren of Mexico, suggests conspecific affinity between *T. brunneicollis* and *T. solstitialis*.

*Material examined*.—Colombia: Páramo de Chiruqua, Sierra Nevada de Santa Marta, 4.

tains (crit.); Todd and Carriker, Ann. Carnegie Mus., 14, p. 417, 1922—Páramo de Chiriqua (habits).

*Range*.—Páramo zone of Santa Marta Mountains (Páramo de Chiriqua, Páramo de Macotama), Colombia.

**\*Troglodytes solstitialis ochraceus** Ridgway.<sup>1</sup> IRAZÚ WREN.

*Troglodytes* (?) *ochraceus* Ridgway, Proc. U. S. Nat. Mus., 4, p. 334, March, 1882—Volcan de Irazú, Costa Rica (type in U. S. National Museum).

*Troglodytes ochraceus* Oberholser, Proc. U. S. Nat. Mus., 27, p. 200, 1904—part, Costa Rica (crit.); Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 590, 1904—part, Costa Rica (monog.); Bangs, Proc. New Engl. Zool. Cl., 4, p. 28, 1908—Irazú, Costa Rica; Ferry, Field Mus. Nat. Hist., Orn. Ser., 1, p. 273, 1910—Coliblanco and Volcan de Turrialba, Costa Rica; Carriker, Ann. Carnegie Mus., 6, p. 765, 1910—Coliblanco, Volcan de Irazú, Azahar de Cartago, Cariblanco de Sarapiquí, and Ujurrás de Térraba, Costa Rica (habits).

*Troglodytes solstitialis* (not of Sclater) Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 102, 1880—part, Costa Rica; Sharpe, Cat. Bds. Brit. Mus., 6, p. 260, 1881—part, Costa Rica.

*Range*.—Subtropical zone of Costa Rica.

6: Costa Rica (Irazú, 2; Turrialba, 1; Santa Cruz, Turrialba, 1; Coliblanco, 2).

**Troglodytes solstitialis ligea** Bangs.<sup>2</sup> CHIRIQUÍ WREN.

*Troglodytes solstitialis ligea* Bangs, Proc. New Engl. Zool. Cl., 4, p. 29, 1908—Boquete, Volcan de Chiriquí, Panama (type in coll. Bangs, now in Museum of Comparative Zoology, Cambridge, Mass.; cf. Bangs, Bull. Mus. Comp. Zool., 70, p. 319, 1930).

*Troglodytes ochraceus* (not of Ridgway) Bangs, Proc. New Engl. Zool. Cl., 3, p. 53, 1902—Boquete, Chiriquí; Oberholser, Proc. U. S. Nat. Mus., 28, p. 200, 1904—part, Panama; Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 590, 1904—part, Chiriquí.

*Range*.—Subtropical zone of western Panama (Volcan de Chiriquí).

<sup>1</sup> *Troglodytes solstitialis ochraceus* Ridgway: Generally similar to *T. s. solitarius*, but more richly colored; upper parts much brighter, more tawny brown; lores, superciliaries, and sides of head much deeper, ochraceous-tawny instead of buff or ochraceous-buff; anterior and lateral under parts deeper ochraceous. Wing, (males) 45–49, (female) 44–46; tail, 31–33, (female) 28–31.

The coloration of the under parts is extremely variable in different individuals, some being hardly distinguishable from *solitarius* in that respect. However, the more rufescent dorsal surface, together with the ochraceous-tawny sides of the head, serves to separate *ochraceus* from the South American races.

*Material examined*.—Costa Rica: Irazú, 6; Turrialba, 3; Coliblanco, 2.

<sup>2</sup> *Troglodytes solstitialis ligea* Bangs: Barely distinguishable from *T. s. ochraceus* by slightly stronger bill and rather duller, less tawny upper parts. Wing (males), 46–48; tail, 32.

*Material examined*.—Panama: Volcan de Chiriquí, 2.

**Troglodytes solstitialis remotus** Griscom.<sup>1</sup> CERRO FLORES WREN.

*Troglodytes ochraceus remotus* Griscom, Amer. Mus. Nov., 141, p. 5, 1924—Cerro Flores, eastern Chiriquí, Panama (type in the American Museum of Natural History, New York).

*Range*.—Subtropical zone of western Panama (Cerro Flores, Chiriquí).

**Troglodytes solstitialis festinus** Nelson.<sup>2</sup> MOUNT PIRRI WREN.

*Troglodytes festinus* Nelson, Smiths. Misc. Coll., 60, No. 3, p. 22, Sept., 1912—Mount Pirri, near head of Rio Limón, eastern Panama (type in U. S. National Museum).

*Range*.—Subtropical zone of eastern Panama (Mount Pirri, Darien).

**\*Troglodytes solstitialis solitarius** Todd.<sup>3</sup> PALE-BREASTED WREN.

<sup>1</sup> *Troglodytes solstitialis remotus* Griscom: "Differing from *T. s. ochraceus* in having much darker under parts, the breast and abdomen light buffy ochraceous instead of buffy white, the throat less tawny, the flanks, sides, and under tail coverts bright buffy ochraceous rather than brownish buff; wing shorter, but bill longer. Wing (adult female), 42; tail, 25; bill, 17." (Griscom, l.c.).

It is not clear from the original description in what particular respect this supposed form differs from *T. s. ligea* except in being slightly smaller. The color characters claimed for it prove to be valueless in the light of the individual variation exhibited by a good series from Costa Rica, and the insignificant divergency in size might well be accounted for by the type being a female. While we have not seen any females of *T. s. ligea*, it might reasonably be assumed that, as in *T. s. ochraceus*, they are smaller than the males. One of our females from Costa Rica hardly exceeds Mr. Griscom's measurements, and we are afraid *T. o. remotus* might have been based upon an unusually richly colored female of *T. s. ligea*, of which the author had only a single male for comparison.

<sup>2</sup> *Troglodytes solstitialis festinus* Nelson: "Most like *T. ochraceus*, but smaller with longer bill; lighter under parts (abdomen white) and shorter superciliary stripe. Compared with *T. s. pallidipectus*, it is smaller, with longer bill and brighter, more reddish ochraceous on sides of head and neck and upper parts of head and body, and less strongly marked bars on wings and tail. Wing (adult male), 44; tail, 27.5." (Nelson, l.c.).

This is clearly a race of *T. solstitialis*, closely related to *T. s. ligea*, than which it is stated to be "much less reddish fulvous." Based as it is on a single example, this form likewise needs corroboration by additional material.

<sup>3</sup> *Troglodytes solstitialis solitarius* Todd: Similar to *T. s. solstitialis*, but upper parts darker; auricular patch deeper brown; throat and foreneck much paler buff, less ochraceous; flanks less rufescent; tail longer. Wing, 47–50, (female) 45–47; tail, 36–37, (female) 32–35; bill, 12–13.

Several years ago when I was examining the examples from Páramo de Rosas in the Carnegie Museum, no topotypical material of *T. s. pallidipectus* was available, but a series from the central Andes of Colombia (Sancudo and La Leonera) was found to be indistinguishable from the Venezuelan birds, and since east Andean specimens do not differ either, there can be little question as to the identity of *pallidipectus* and *solitarius*, a conclusion corroborated by Mr. Todd (in litt.).

*Material examined*.—Venezuela: Páramo de Rosas, Lara, 3.—Colombia: eastern Andes, "Bogotá," 5; central Andes, Laguneta, 2; Santa Elena, 1; Sancudo, 7; La Leonera, 5.

*Troglodytes solitarius* Todd, Ann. Carnegie Mus., 8, p. 206, May, 1912—Páramo de Rosas, Lara, Venezuela (type in Carnegie Museum examined); idem, l.c., 18, p. 356, 1928—Páramo de Rosas.

*Troglodytes solstitialis pallidipectus* Chapman, Bull. Amer. Mus. N. H., 31, p. 157, July, 1912—Cerro Munchique, Andes west of Popayan, Cauca, Colombia (type in the American Museum of Natural History, New York); idem, l.c., 36, p. 521, 1917—part, Cerro Munchique (western Andes), Laguneta, Santa Isabel, El Eden, Rio Toché (central Andes), El Roble and El Piñon (eastern Andes), Colombia; idem, l.c., 55, p. 570, 1926—Colombia and western Venezuela (Mérida) (crit.).

*Troglodytes solstitialis* (not of Sclater) Sclater and Salvin, Exot. Orn., p. 45, 1867—part, Bogotá; idem, Proc. Zool. Soc. Lond., 1879, p. 493—Santa Elena and "Neché," Antioquia, Colombia (eggs descr.); Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 102, 1880—part, Colombia (Antioquia, Bogotá); Sharpe, Cat. Bds. Brit. Mus., 6, p. 260, 1881—part, Antioquia, Colombia.

*Troglodytes solstitialis solstitialis* Oberholser, Proc. U. S. Nat. Mus., 27, p. 199, 1904—part, Colombia.

**Range.**—Temperate and Upper Subtropical zones of western Venezuela (Páramo de Rosas, southeast of Carache, Lara; Cordillera of Mérida) and Colombia (all three Andean ranges excepting the extreme southern section).

**\**Troglodytes solstitialis solstitialis* Sclater. EQUATORIAL WREN.**

*Troglodytes solstitialis* Sclater, Proc. Zool. Soc. Lond., 26, p. 550, 1858—Matos and Pinipi, near Riobamba, Ecuador (types in coll. of P. L. Sclater, now in British Museum); idem, l.c., 28, p. 84, 1860—"Nanegal," Ecuador; idem, Cat. Coll. Amer. Bds., p. 23, 1862—Pinipi and Matos; Sclater and Salvin, Exot. Orn., p. 45, pl. 23, fig. 1, 1867—part, Ecuador (Matos, Pinipi, "Nanegal"); Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 102, 1880—part, Ecuador (Matos, Pinipi, "Nanegal," "Puna Island," errore); Sharpe, Cat. Bds. Brit. Mus., 6, p. 260, 1881—part, Ecuador; Berlepsch and Taczanowski, Proc. Zool. Soc. Lond., 1883, p. 541—Cayandeled, Ecuador; idem, l.c., 1884, p. 285—Cayandeled; idem, l.c., 1885, p. 73—Baños, San Rafael, and El Mirador, Ecuador; Salvadori and Festa, Boll. Mus. Zool. Torino, 14, No. 357, p. 7, 1899—Puna, Ecuador; Goodfellow, Ibis, 1901, p. 313—"Baeza," Ecuador.

*Hemiura solstitialis* Ménégau, Miss. Serv. Géog. Armée Mes. Arc Mérid. Equat., 9, p. B 67, 1911—"Gualea" and Oyacachi, Ecuador.

*Troglodytes solstitialis solstitialis* Oberholser, Proc. U. S. Nat. Mus., 27, p. 199, 1904—part, Ecuador (crit.); Chapman, Bull. Amer. Mus. N. H., 55, p. 570, 1926—above Chambo, Taraguacocha, Cerro Huamani, Oyacachi, above Baeza, and lower Sumaco (Ecuador), Almaguer, Valle de las Pappas, and La Palma (Colombia), and Chaupe, near Huancabamba, Peru (crit.).

*Troglodytes ochraceus* (not of Ridgway) Goodfellow, Ibis, 1901, p. 313—west side of Pichincha, Ecuador (spec. examined).

*Troglodytes solstitialis pallidipectus* (not of Chapman, 1912) Chapman, Bull. Amer. Mus. N. H., 36, p. 521, 1917—part, Almaguer, Valle de las Pappas, and La Palma, Colombia.

**Range.**—Upper Subtropical and humid Temperate zones of extreme southern Colombia (sources of Rio Patia and head of Magdalena Valley), Ecuador, and adjacent section of northwestern Peru (Chaupe, near Huancabamba, Dept. Piura).<sup>1</sup>

2: Colombia (Almaguer, 2).

***Troglodytes solstitialis macrourus* Berlepsch and Stolzmann.<sup>2</sup>**  
LONG-TAILED EQUATORIAL WREN.

*Troglodytes solstitialis macrourus* Berlepsch and Stolzmann, Proc. Zool. Soc. Lond., 1902, 2, p. 55—Pariayacu, Maraynioc, Dept. Junín, Peru (type in Warsaw Museum; cf. Sztolcman and Domaniewski, Ann. Zool. Mus. Pol. Hist. Nat., 6, p. 154, 1927); Oberholser, Proc. U. S. Nat. Mus., 27, p. 199, 1904—Peru (crit.); Hellmayr, Arch. Naturg., 85, A, Heft 10, p. 4, 1920—Maraynioc (crit.); Chapman, Bull. U. S. Nat. Mus., 117, p. 103, 1921—Torontoy, Urubamba Valley, Peru; idem, Bull. Amer. Mus. N. H., 55, p. 57, 1926—Dept. Junín (Rumicruz, Maraynioc, Chelpe) and Torontoy, Urubamba Valley, Peru (crit.).

*Troglodytes solstitialis* (not of Sclater) Sclater and Salvin, Proc. Zool. Soc. Lond., 1873, pp. 780, 781—Huasampilla, near Cuzco; Taczanowski, l.c., 1874, p. 505—Maraynioc and Pumamarca (eggs descr.); Sharpe, Cat. Bds. Brit. Mus., 6, p. 260, 1881—part, Peru; Taczanowski, Orn. Pér., 1, p. 521, 1884—Maraynioc and Pumamarca.

*Troglodytes frater* (not of Sharpe) Berlepsch and Stolzmann, Proc. Zool. Soc. Lond., 1896, p. 328—Maraynioc (crit.).

**Range.**—Temperate zone of eastern Peru, from the Urubamba Valley north to Junín.

<sup>1</sup> Birds from western and eastern Ecuador agree well together. Compared to *T. s. solitarius*, they are much deeper ochraceous-buff on throat, chest, and sides, and have decidedly shorter tails, while the light bars on the under tail coverts are white rather than buffish. Two birds from Almaguer, sources of the Rio Patia, Colombia, have the crissum as in *solitarius* and resemble it also in length of tail, but the anterior and lateral under parts are as richly colored as in Ecuadorian specimens.

**Material examined.**—Ecuador: Cayandedel, 2; Baños, 4; above Baeza, 1; west side of Pichincha, 2.—Colombia: Almaguer, 2.

<sup>2</sup> *Troglodytes solstitialis macrourus* Berlepsch and Stolzmann: Similar to *T. s. solstitialis* in having the under tail coverts white barred with black, but larger, the tail particularly longer; middle of breast and abdomen pure white, more sharply contrasted with the ochraceous-brown of the sides. Not unlike *T. s. solitarius* and about the same size, but under tail coverts white instead of ochraceous, abdomen whiter, and anterior under parts much deeper ochraceous-buff. Wing, (male) 51–53; tail, 37–39.

**Material examined.**—Peru: Maraynioc, 4; Torontoy, 1.

**Troglodytes solstitialis frater Sharpe.<sup>1</sup> WHITE-BROWED EQUATORIAL WREN.**

*Troglodytes frater* Sharpe, Cat. Bds. Brit. Mus., 6, p. 261, 1881—Bolivia (type in British Museum).

*Troglodytes solstitialis frater* Allen, Bull. Amer. Mus. N. H., 2, p. 79, 1889—"Mapiri," Bolivia.

*Troglodytes solstitialis frater* Oberholser, Proc. U. S. Nat. Mus., 27, p. 199, 1904—Bolivia (crit.); Hellmayr, Arch. Naturg., 85, A, Heft 10, p. 4, 1920—Chuhuasi, Peru, and Bolivia (crit.); Chapman, Bull. Amer. Mus. N. H., 55, p. 571, 1926—Oconeque (near Limbani), Peru, and Incachaca, Cochabamba, Bolivia (crit.).

*Troglodytes solstitialis* (not of Sclater) Sclater and Salvin, Proc. Zool. Soc. Lond., 1879, p. 593—Tiltilo, Bolivia.

**Range.**—Upper Subtropical and humid Temperate zones of Bolivia and extreme southeastern Peru (Oconeque and Chuhuasi, Sierra de Carabaya, Dept. Puno).

**Troglodytes solstitialis auricularis Cabanis.<sup>2</sup> ARGENTINE EQUATORIAL WREN.**

*Troglodytes (Uropsila) auricularis* Cabanis, Journ. Orn., 31, p. 105, pl. 2, fig. 1, 1883—Sierra of Tucumán (type in Berlin Museum examined).

*Troglodytes auricularis* Sclater and Hudson, Arg. Orn., 1, p. 15, 1888—Tucumán; Lillo, Anal. Mus. Nac. Hist. Nat. Buenos Aires, 8, p. 172, 1902—Tafi Viejo, San Pablo, and Villa Nougues, Tucumán; Oberholser, Proc. U. S. Nat. Mus., 27, p. 199, 1904—Tucumán (crit.); Dabbene, Anal. Mus. Nac. Hist. Nat. Buenos Aires, 18, p. 356, 1910—Tucumán.

*Hemiura auricularis* Lillo, Rev. Letr. Cienc. Soc., 3, p. 39, 1905—Tucumán (Tafi Viejo, San Pablo, Villa Nougues).

*Troglodytes solstitialis auricularis* Hartert and Venturi, Nov. Zool., 16, p. 164, 1909—San Pablo, Tucumán; Dinelli, El Hornero, 1, p. 60, 1918—Sierra of Tucumán (alt. 700–2,000 meters) (nest and eggs descr.); Hellmayr, Arch. Naturg., 85, A, Heft 10, p. 5, 1920—Tucumán and Jujuy (crit.); Chapman, Bull. Amer. Mus. N. H., 55, p. 571, 1926—Tucumán región (crit.).

<sup>1</sup> *Troglodytes solstitialis frater* Sharpe: Nearest to *T. s. macrourus*, but tail even longer; superciliaries white to buffy white instead of ochraceous; dorsal surface generally less rufescent; throat buffy white, only the chest tinged with pale ochraceous; sides and flanks less extensively and paler ochraceous brown. Wing, 52–53½, (female) 50–51; tail, 40–43, (female) 37–40.

**Material examined.**—Peru: Chuhuasi (alt. 7,000 ft.), Sierra of Carabaya, 1.—Bolivia, Dept. La Paz: Cocapata, 4; Sandillani, 1; Chaco, 2; San Cristobal, 1.

<sup>2</sup> *Troglodytes solstitialis auricularis* Cabanis: Exceedingly close to *T. s. frater*, but with shorter tail, and upper parts as well as flanks duller, more of an earthy brown, less rufescent. Wing, 51–52, (female) 47–48; tail, 34–37.

Rather an unsatisfactory race, which needs corroboration by a larger series. In white superciliaries and pale under parts it agrees perfectly with *T. s. frater*.

**Material examined.**—Tucumán: San Pablo, 2; Villa Nougues, 1; unspecified, 1.—Jujuy: San Francisco, Cerro de Calilegua, 1.



*Range*.—Upper Subtropical and humid Temperate zones of northwestern Argentina, in provinces of Tucumán and Jujuy.

**Troglodytes rufulus rufulus** Cabanis.<sup>1</sup> RORAIMA WREN.

*Troglodytes rufulus* Cabanis, in Schomburgk, Reisen Brit. Guiana, 3, p. 672, "1848"—1849—Roraima, British Guiana (type in Berlin Museum); Salvin, Ibis, 1885, p. 201—Roraima (crit.); Oberholser, Proc. U. S. Nat. Mus., 27, p. 210, 1904—Roraima (descr., crit.); Chubb, Bds. Brit. Guiana, 2, p. 362, 1921—Roraima; Chapman, Bull. Amer. Mus. N. H., 63, p. 108, 1931—Philipp Camp, Rondon Camp, and Summit, Roraima.

*Range*.—Subtropical zone of Mount Roraima, on the confines of Venezuela and British Guiana.

**Troglodytes rufulus duidae** Chapman.<sup>2</sup> DUIDA WREN.

*Troglodytes duidae* Chapman, Amer. Mus. Nov., 380, p. 22, 1929—Mount Duida, Venezuela (type in the American Museum of Natural History, New York); idem, Bull. Amer. Mus. N. H., 63, p. 108, 1931—Mount Duida.

*Range*.—Subtropical zone of Mount Duida, southern Venezuela.

**\*Troglodytes troglodytes hiemalis** Vieillot.<sup>3</sup> EASTERN WINTER WREN.

*Troglodytes hiemalis* Vieillot, Nouv. Dict. Hist. Nat., nouv. éd., 34, p. 514, 1819—Nova Scotia and New York (location of type not stated).

*Olbiorchilus hiemalis hiemalis* Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 597, 1904—eastern North America (monog., full bibliog.).

*Nannus troglodytes hiemalis* Oberholser, Proc. U. S. Nat. Mus., 55, p. 236, 1919—eastern North America (crit.).

*Range*.—Eastern North America, from southern Alberta, Manitoba, northern Ontario, Quebec, and Newfoundland south to Minnesota, Wisconsin, Michigan, Rhode Island, and Massachusetts, and through the Alleghenies to northern Georgia. Winters from about its southern breeding limit to Texas and Florida.

<sup>1</sup> *Troglodytes rufulus* Cabanis is probably an offshoot of *T. solstitialis*, from which it mainly differs by larger size and intensified coloration.

*Material examined*.—British Guiana: Roraima, 15.

<sup>2</sup> *Troglodytes rufulus duidae* Chapman: Similar to *T. r. rufulus*, but under parts whitish, only the flanks, lower abdomen, and tail coverts light argus brown; lores grayish; dusky bars on tail and inner secondaries more pronounced. The juvenile plumage is more rufescent above, Prout's brown rather than mummy brown, and shows more or less distinct blackish bars on the under parts. Wing, (adult males) 55–58, (females) 54–56; tail, 37–40; bill, 17–18.

*Material examined*.—Venezuela: Mount Duida, 8.

<sup>3</sup> I fully agree with Dr. Oberholser's contention that the American Winter Wren and its allies are conspecific with *T. troglodytes* of the Old World.

30: Maine (Dedham, 1); Massachusetts (off Boston, 1); New York (Auburn, 1); North Carolina (Raleigh, 1); Illinois (Deerfield, 1; Grand Crossing, 1; Beach, 2; Chicago, 4; Highland Park, 2; Joliet, 2); Wisconsin (Beaver Dam, 13; Woodruff, 1).

**Troglodytes troglodytes meligerus** (Oberholser). ALEUTIAN WREN.

*Anorthura meligera* Oberholser, Auk, 17, p. 25, 1900—Attu Island, Aleutian Islands, Alaska (type in U. S. National Museum).

*Olbiorchilus meligerus* Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 604, 1904—part, Attu Island (monog.).

*Nannus troglodytes meligerus* Oberholser, Proc. U. S. Nat. Mus., 55, p. 227, 1919—Attu Island (monog.).

*Nannus meliger* Laing, Victoria Mem. Mus., Mus. Bull., 40, p. 41, 1925—part, Attu Island.

*Range*.—Attu Island, Aleutian chain, Alaska.

**Troglodytes troglodytes kiskensis** (Oberholser).<sup>1</sup> KISKA WREN.

*Nannus troglodytes kiskensis* Oberholser, Proc. U. S. Nat. Mus., 55, p. 228, 1919—Kiska Harbour, Kiska Island, Aleutian Islands, Alaska (type in U. S. National Museum).

*Olbiorchilus meligerus* (not of Oberholser) Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 604, 1904—part, Kiska Island.

*Range*.—Kiska and Little Kiska Islands, Aleutian chain, Alaska.

**Troglodytes troglodytes alascensis** Baird. ALASKA WREN.

*Troglodytes alascensis* Baird, Trans. Chicago Acad. Sci., 1, p. 315, pl. 30, fig. 3, 1869—"St. George's Island, Behring's Sea"—St. George Island, Pribiloff Islands (type in U. S. National Museum).

*Olbiorchilus alascensis* Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 602, 1904—part, St. George, Pribiloff Islands.

*Nannus alascensis* Hanna, Auk, 33, p. 403, 1916—St. Paul Island, Pribiloff Islands.

*Nannus troglodytes alascensis* Oberholser, Proc. U. S. Nat. Mus., 55, p. 229, 1919—St. George and St. Paul islands (monog.).

*Range*.—Saint George and Saint Paul islands, Pribiloff Islands.

**Troglodytes troglodytes tanagensis** (Oberholser).<sup>2</sup> TANAGA WREN.

<sup>1</sup> *Troglodytes troglodytes kiskensis* (Oberholser): "Similar to *T. t. meligerus*, but wing, tail, and tarsus shorter; upper parts lighter, less rufescent (more grayish) brown, and posteriorly more uniform (less distinctly barred); lower parts more deeply ochraceous, and posteriorly somewhat less heavily barred with blackish." (Oberholser, l.c.).

<sup>2</sup> *Troglodytes troglodytes tanagensis* (Oberholser): "Similar to *T. t. kiskensis*, but wing somewhat longer; upper parts more rufescent and rather lighter, especially on the lower back, rump, and upper tail coverts; posterior lower parts on average less heavily barred, and with the bars less blackish; the entire under surface averaging lighter and somewhat more ochraceous." (Oberholser, l.c.).

*Nannus troglodytes tanagensis* Oberholser, Proc. U. S. Nat. Mus., 55, p. 230, 1919—Tanaga Bay, Tanaga Island, Aleutian Islands, Alaska (type in U. S. National Museum).

*Olbiorchilus meligerus* (not of Oberholser) Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 604, 1904—part, Atka Island.

*Nannus meliger* Laing, Victoria Mem. Mus., Mus. Bull., 40, p. 41, 1925—part, Adak Island.

*Range*.—Islands of Tanaga, Adak, and Atka, Aleutian chain, Alaska, and probably other adjacent islands.

**Troglodytes troglodytes petrophilus** Oberholser.<sup>1</sup> UNALASKA WREN.

*Nannus troglodytes petrophilus* Oberholser, Proc. U. S. Nat. Mus., 55, p. 232, 1919—Unalaska, Unalaska Island, Alaska (type in U. S. National Museum).

*Anorthura alascensis* (not *Troglodytes alascensis* Baird) Sharpe, Cat. Bds. Brit. Mus., 6, p. 273, 1881—Amaknak Island, Unalaska.

*Olbiorchilus alascensis* Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 602, 1904—part, Unalaska, Akutan, and Amaknak.

*Range*.—Islands of Unalaska, Amaknak, and Akutan, Aleutian chain, Alaska.

**Troglodytes troglodytes stevensoni** (Oberholser).<sup>2</sup> STEVENSON'S WREN.

*Nannus troglodytes stevensoni* Oberholser, Proc. Biol. Soc. Wash., 43, p. 151, 1930—Amak Island, Alaska (type in U. S. National Museum).

*Range*.—Islands of Amak and Amagat, Alaska, and probably also other neighboring islands and the southwestern end of the Alaska Peninsula.

**Troglodytes troglodytes semidiensis** (Brooks).<sup>3</sup> SEMIDI WREN.

*Nannus hiemalis semidiensis* Brooks, Bull. Mus. Comp. Zool., 59, p. 400, 1915—Choyiet Island, Semidi Islands, Alaska (type in Museum of Comparative Zoology, Cambridge, Mass.).

<sup>1</sup> *Troglodytes troglodytes petrophilus* Oberholser: "Similar to *T. t. alascensis*, but wing shorter; bill longer; upper parts lighter, much more rufescent; lower parts decidedly paler, and posteriorly with narrower and lighter bars." (Oberholser, l.c.).

<sup>2</sup> *Troglodytes troglodytes stevensoni* (Oberholser): "Similar to *T. t. petrophilus*, from Unalaska Island, but upper parts, and to a less extent, also the lower surface, more grayish or sooty (less rufescent) in both adult and juvenile plumages; posterior lower parts in adults on the average less heavily spotted with fuscous; bill and middle toe averaging slightly longer." (Oberholser, l.c.).

<sup>3</sup> *Troglodytes troglodytes semidiensis* (Brooks): "Similar to *T. t. petrophilus*, but wing, tail, and bill somewhat longer; upper parts less rufescent (more grayish) and somewhat darker; under surface paler, less deeply ochraceous, and posteriorly rather more heavily barred." (Oberholser, l.c.).

*Nannus troglodytes semidiensis* Oberholser, Proc. U. S. Nat. Mus., 55, p. 234, 1919—Semidi Islands (crit.); Bangs, Bull. Mus. Comp. Zool., 70, p. 319, 1930—Choyiet Island (type).

**Range.**—Semidi Islands, off the southern coast of the Alaska Peninsula.

***Troglodytes troglodytes helleri* (Osgood). KODIAK WREN.**

*Anorthura hiemalis helleri* Osgood, Auk, 18, p. 181, 1901—English Bay, near Kodiak, Kodiak Island, Alaska (type in U. S. National Museum).

*Olbiorchilus hiemalis helleri* Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 602, 1904—Kodiak Island (monog.).

*Nannus hiemalis helleri* Oberholser, Proc. U. S. Nat. Mus., 55, p. 234, 1919—Kodiak Island (crit.).

**Range.**—Kodiak Island, Alaska.

**\**Troglodytes troglodytes pacificus* Baird. WESTERN WINTER WREN.**

*Troglodytes hyemalis* var. *pacificus* Baird, Rev. Amer. Bds., 1, p. 145, 1864—Simiahmoo, Puget Sound, W. T. [= Washington] (type in U. S. National Museum).

*Olbiorchilus hyemalis pacificus* Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 600, 1904—western North America (monog., full bibliog.).

*Nannus troglodytes pacificus* Oberholser, Proc. U. S. Nat. Mus., 55, p. 235, 1919—western North America (crit.).

**Range.**—From Prince William Sound, Alaska, and western Alberta south to central California and northern Arizona. Winters from southern British Columbia to southern California and southern New Mexico. Accidental at Point Barrow, Alaska.

16: British Columbia (Okanagan, 1); Oregon (Logan, 5; Clackamas County, 1; Tillamook, 1); California (Monterey, 2; Santa Cruz, 3; Nicasio, 2); Arizona (Grand Canyon of Colorado River, 1).

**Genus THRYORCHILUS Oberholser**

*Thryorchilus* Oberholser, Proc. U. S. Nat. Mus., 27, p. 198, 1904—type, by orig. desig., *Troglodytes browni* Bangs.

***Thryorchilus browni browni* (Bangs). BROWN'S WREN.**

*Troglodytes browni* Bangs, Proc. New Engl. Zool. Cl., 3, p. 53, Jan., 1902—Volcan de Chiriquí (alt. 10,000 ft.), Panama (type now in Museum of Comparative Zoology, Cambridge, Mass.; cf. Bangs, Bull. Mus. Comp. Zool., 70, p. 319, 1930); Hellmayr, Journ. Orn., 51, p. 534, 1903—Volcan de Chiriquí (crit.).

*Thryorchilus browni* Oberholser, Proc. U. S. Nat. Mus., 27, p. 198, 1904—Volcan de Chiriquí (crit.); Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 606, 1904—Volcan de Chiriquí (monog.).

*Range*.—Temperate zone of western Panama (Volcan de Chiriquí, alt. 10,000 feet).<sup>1</sup>

**\*Thryorchilus browni ridgwayi** Bangs.<sup>2</sup> RIDGWAY'S WREN.

*Thryorchilus ridgwayi* Bangs, Proc. Biol. Soc. Wash., 19, p. 108, 1906—Volcan de Irazú, Costa Rica (type now in Museum of Comparative Zoology, Cambridge, Mass.; cf. Bangs, Bull. Mus. Comp. Zool., 70, p. 319, 1930); idem, Proc. New Engl. Zool. Cl., 4, p. 30, 1908—Volcan de Irazú (crit.).

*Thryorchilus browni ridgwayi* Carriker, Ann. Carnegie Mus., 6, p. 764, 1910—volcanoes of Turrialba and Irazú, Costa Rica (crit., habits).

*Range*.—Temperate zone of Costa Rica (volcanoes of Turrialba and Irazú, alt. 9,000 to 10,000 feet).

1: Costa Rica (Volcan de Turrialba, 1).

**Thryorchilus browni basultoi** Ridgway.<sup>3</sup> BASULTO'S WREN.

*Thryorchilus basultoi* Ridgway, Proc. Biol. Soc. Wash., 21, p. 191, 1908—Las Vueltas, Cordillera de Dota, Costa Rica (type in U. S. National Museum examined); Carriker, Ann. Carnegie Mus., 6, p. 765, 1910—Las Vueltas (ex Ridgway); Smith, Condor, 33, p. 249, 1931—Las Vueltas.

*Range*.—Temperate zone of Costa Rica (Dota Mountains).

Genus **HENICORHINA** Sclater and Salvin

*Heterorhina* (not Westwood, 1845) Baird, Rev. Amer. Bds., 1, p. 115, 1864—type, by orig. desig., *Scytalopus prosthaleucus* Sclater.

*Henicorhina* Sclater and Salvin, Proc. Zool. Soc. Lond., 1868, p. 170—new name for *Heterorhina* Baird, preoccupied.

**\*Henicorhina leucosticta leucosticta** (Cabanis). BLACK-CAPPED WOOD WREN.

*Cyphorhinus leucostictus* Cabanis, Arch. Naturg., 13, (1), p. 206, 1847—part, Guiana, as restricted by Sclater (Proc. Zool. Soc. Lond., 26, p. 64,

<sup>1</sup> *Material examined*.—Panama: Volcan de Chiriquí, 3.

<sup>2</sup> *Thryorchilus browni ridgwayi* Bangs: Similar to *T. b. browni*, but larger and upper parts of a much deeper rufous brown coloration. Wing (males), 51–53 (against 45–49); tail, 32–34 (against 27–31); bill, 14.

*Material examined*.—Costa Rica: Volcan de Irazú, 3; Volcan de Turrialba, 1.

<sup>3</sup> *Thryorchilus browni basultoi* Ridgway: Differs from the two other races by much shorter, stouter bill; more purely white under parts; and by having the pileum and auricular patch dusky (dark sepia) in decided contrast to the mummy brown back instead of concolor with the latter. Wing (adult female), 52; tail, 32; bill, 12.

This form, known from a single female in breeding plumage, requires confirmation by additional material. A second example has quite recently been recorded by A. P. Smith.

1858)<sup>1</sup> (type from British Guiana in Berlin Museum); idem, in Schomburgk, *Reisen Brit. Guiana*, 3, p. 673, "1848"—coast forests of British Guiana; Pelzeln, *Orn. Bras.*, 1, p. 47, 1868—Cocuy, Rio Negro, and Rio Vaupé, Brazil.

*Henicorhina leucosticta* Salvin and Godman, *Biol. Centr.-Amer.*, Aves, 1, p. 79, 1880—part, Guiana; Sharpe, *Cat. Bds. Brit. Mus.*, 6, p. 287, 1881—part, Bartica Grove, British Guiana; Salvin, *Ibis*, 1885, p. 200—Bartica Grove, Merumé Mountains and Camacusa, British Guiana; Berlepsch and Hartert, *Nov. Zool.*, 9, p. 5, 1902—Nicare, Caura River, Venezuela; Hellmayr, *Journ. Orn.*, 51, p. 53, 1903—part, British Guiana, Venezuela (Caura Valley), and upper Rio Negro, Brazil; Ihering and Ihering, *Cat. Faun. Braz.*, 1, p. 326, 1907—part, Venezuela, Guyana, and Rio Negro; Cherrie, *Sci. Bull.*, Mus. Brookl. Inst., 2, p. 147, 1916—Caura Valley; Chubb, *Bds. Brit. Guiana*, 2, p. 363, 1921—British Guiana.

*Henicorhina leucosticta leucosticta* Beebe, *Trop. Wild Life*, 1, p. 135, 1917—Bartica, British Guiana.

**Range.**—Tropical zone of British Guiana,<sup>2</sup> eastern Venezuela (Caura Valley), and northwestern Brazil (Cocuy, Rio Negro, and Rio Uaupés).<sup>3</sup>

1: British Guiana (Caramang River, 1).

**\**Henicorhina leucosticta hauxwelli* Chubb.<sup>4</sup> HAUXWELL'S WOOD WREN.**

*Henicorhina leucosticta hauxwelli* Chubb, *Bull. Brit. Orn. Cl.*, 40, p. 156, 1920—Elvira, Rio Marañón, Peru (type in British Museum examined); Chapman, *Bull. Amer. Mus. N. H.*, 55, p. 572, 1926—Zamora, Macas region,

<sup>1</sup> Although Mexico (Papantla), where another form, *H. l. prosthleuca*, is found, was also mentioned by Cabanis, *C. leucostictus* was virtually restricted to Guiana in 1858 by Sclater, who remarks: "... if the birds from these two localities [viz. Guiana and Mexico] are not identical (as I think is likely to be the case), the S[outh] American bird may retain Cabanis' name...."

<sup>2</sup> No published records from either Dutch or French Guiana, where this wren is, however, likely to occur.

<sup>3</sup> Three specimens from Cocuy, Rio Negro, do not differ from a Guianan series and three Caura birds. Characteristic of this form are the black pileum, the obsolete barring of the remiges, and the absence of a distinct black submalar streak.

**Material examined.**—British Guiana: Bartica Grove, 2; Camacusa, 3; Caramang River, 2.—Venezuela: Caura River, 3.—Brazil: Cocuy, Rio Negro, 3.

<sup>4</sup>*Henicorhina leucosticta hauxwelli* Chubb: Similar to *H. l. leucosticta*, but back, wings, and tail of a deeper, more rufous chestnut, and flanks somewhat darker rufous brown.

We are unable to perceive any constant differences between specimens from various parts of the range, although those from Colombia appear to be on average slightly lighter above. The upper part of the head is dull black as in the typical race, and the barring of the remiges varies to the same degree. There is never a distinct black submalar streak.

**Material examined.**—Colombia: "Bogotá," 1; Florencia, Caquetá, 3; La Morelia, Rio Bodoquera, 2.—Ecuador: Sarayacu, 2; Rio Napo, 1; San José, 2.—Peru: Elvira, 1 (the type); Huachipa, Dept. Huánuco, 3; mouth of Cayumba River, Dept. Huánuco, 1.

Rio Suno, and below San José, Ecuador (crit.); Zimmer, Field Mus. Nat. Hist., Zool. Ser., 17, p. 407, 1930—Huachipa, Huánuco, Peru (crit.).

*Cyphorhinus leucostictus* (not of Cabanis) Sclater, Proc. Zool. Soc. Lond., 26, p. 63, 1858—Rio Napo, Ecuador; idem, Cat. Coll. Amer. Bds., p. 20, 1862—Rio Napo.

*Henicorhina leucosticta* Baird, Rev. Amer. Bds., 1, p. 117, 1864—part, Rio Napo, Ecuador; Sharpe, Cat. Bds. Brit. Mus., 6, p. 287, 1881—part, Ecuador (Sarayacu) and Peru ("Chira"—Elvira); Bartlett, Proc. Zool. Soc. Lond., 1882, p. 373—Elvira, Peru; Taczanowski, Orn. Pér., 1, p. 513, 1884—Elvira, Peru; Heine and Reichenow, Nomencl. Mus. Hein., p. 43, 1890—part, Rio Napo; Salvadori and Festa, Boll. Mus. Zool. Torino, 14, No. 357, p. 6, 1899—Rio Santiago, Ecuador; Hellmayr, Journ. Orn., 51, p. 531, 1903—part, Sarayacu, Ecuador; Chapman, Bull. Amer. Mus. N. H., 36, p. 522, 1917—part, La Morelia and Florencia, southeastern Colombia.

*Range*.—Tropical zone of upper Amazonia, from the eastern foot of the eastern Andes of Colombia through eastern Ecuador to central-eastern Peru (Dept. Huánuco).

6: Colombia (Florencia, Caquetá, 1); Peru (Huachipa, 4; mouth of Cayumba River, 1).

**\**Henicorhina leucosticta inornata* Hellmayr.<sup>1</sup> LITA WOOD WREN.**

*Henicorhina inornata* Hellmayr, Journ. Orn., 51, p. 528, 1903—Lita, Prov. Imbabura, Ecuador (type in Munich Museum); idem, Proc. Zool. Soc. Lond., 1911, p. 1090—Sipi, Chocó, Colombia (crit.); Chapman, Bull. Amer. Mus. N. H., 36, p. 525, 1917—Nóvita, San José, and Barbacoas (Nariño), Colombia (crit.); Lönnberg and Rendahl, Ark. Zool., 14, No. 25, p. 77, 1922—Mindó, Ecuador; Chapman, Bull. Amer. Mus. N. H., 55, p. 572, 1926—northwestern Ecuador.

*Range*.—Tropical zone of western Colombia, north to the San Juan River, and northwestern Ecuador (Esmeraldas, Imbabura, and Pichincha).

2: Ecuador (Lita, Prov. Imbabura, 2).

<sup>1</sup>*Henicorhina leucosticta inornata* Hellmayr: Nearest to *H. l. pitieri* and agreeing in heavily black-marked malar region; but upper parts brighter, castaneous instead of dull rufous brown, the pileum more rufous; white superciliaries narrower; gray on lateral portion of breast more extensive and darker in tone; white of foreneck and chest dingier; flanks deeper rufous brown; bill thicker, with the base of the lower mandible flesh-color. Wing, 55–60, (female) 53–57; tail, 25–30; bill, 15–17.

A single adult from Colombia (Sipi, Rio Sipi, Chocó) merely differs by purer white foreneck and breast. Although well characterized by its extremely dark coloration and strong, basally light-colored bill, *H. l. inornata* is so closely approached in some respects by certain Panama examples of *H. l. pitieri* that I have no hesitation in associating it subspecifically with the *H. leucosticta* group.

*Material examined*.—Colombia: Sipi, Rio Sipi, Chocó, 1.—Ecuador, Prov. Esmeraldas: Ventana (alt. 90 ft.), 1; Bulón (alt. 160 ft.), 2; Lita (alt. 3,000 ft.), Prov. Imbabura, 19.

**Henicorhina leucosticta eucharis** Bangs.<sup>1</sup> WEST ANDEAN WOOD WREN.

*Henicorhina leucosticta eucharis* Bangs, Proc. Biol. Soc. Wash., 23, p. 74, 1910—Pavas (alt. 4,400 ft.), western Andes of Colombia (type now in Museum of Comparative Zoology, Cambridge, Mass.; cf. Bangs, Bull. Mus. Comp. Zool., 70, p. 320, 1930); Hellmayr, Proc. Zool. Soc. Lond., 1911, p. 1090—Primavera, western Andes (crit.).

*Henicorhina prosthaleuca eucharis* Chapman, Bull. Amer. Mus. N. H., 36, p. 522, 1917—Pavas, "near Jiménez," and Las Lomitas, western Andes (crit.).

**Range.**—Subtropical zone of the southern section of the western Andes of Colombia (Las Lomitas, Pavas, and Primavera, head of the Rio Dagua).

**Henicorhina leucosticta albilateralis** Chapman.<sup>2</sup> WHITE-SIDED WOOD WREN.

<sup>1</sup>*Henicorhina leucosticta eucharis* Bangs: Exceedingly similar to *H. l. prosthaleuca* and *H. l. tropaea*, but slightly larger; rufous of upper parts on average duller; blackish barring on wings decidedly narrower and less pronounced; no black submalar streak; cheeks and malar region less marked with blackish. Wing, 64, (female) 58–60; tail, 27–30; bill, 15½–17.

In indistinct barring of wings and restricted black markings on sides of head, *H. l. eucharis* resembles *H. l. leucosticta*, but is larger in all dimensions and much duller, less chestnut above with the pileum dull umber brown instead of black. From *H. l. inornata*, its geographical neighbor, it may be distinguished at a glance by much duller, less rufous upper parts, this being particularly noticeable on the pileum; less distinct blackish bars on the remiges; wholly black bill; absence of the black submalar streak; much paler, fulvous rather than rufous brown, flanks, etc. The foreneck and breast are pure white, more like *H. l. prosthaleuca* and *H. l. tropaea*, while the sides of the breast, though as a rule lighter, occasionally approach *H. l. inornata* in deepness of coloring. *H. l. eucharis* obviously replaces the latter form in the Subtropical zone of the west Colombian Andes.

*H. l. inornata* ranges from sea level up to about 3,000 feet, at least in Ecuador, whereas *H. l. eucharis* does not seem to descend much below 5,000 feet. Palmer, it is true, labeled a specimen as being from "near Jiménez, alt. 2,400 ft.," a statement which appears to us highly questionable.

**Material examined.**—Colombia: Las Lomitas (alt. 5,000 ft.), 3; Primavera (alt. 5,200 ft.), 2; "near Jiménez (alt. 2,400 ft.)," 1.

<sup>2</sup>*Henicorhina leucosticta albilateralis* Chapman: Nearest to *H. l. eucharis* and about the same size, but upper parts even duller, cinnamon-brown rather than auburn; flanks likewise paler fulvous brown; sides of breast with very little, if any, gray; sides of head less streaked with black. Wing (males), 61–65; tail, 32–33; bill, 16½–17½.

Though pretty close to *H. l. eucharis*, this form may be separated by its duller dorsal surface, paler flanks, less grayish sides, and lesser amount of black streaking on auriculars and malar region. In the last-named character it closely resembles *H. l. leucosticta* and *H. l. hauxwelli*, from which it differs, however, by the brownish instead of black pileum and much more distinctly barred wings, aside from certain minor divergencies.

An adult bird from Rio Frio, Cauca Valley, except in being slightly deeper above, agrees very well with the type, whereas two from Peque, at the sources of the Rio Sucio, have the sides of the head more profusely streaked with black, much like *H. l. darienensis*, to which they are thus somewhat intermediate.

**Material examined.**—Colombia: El Consuelo, Magdalena Valley, 2; Rio Frio, Cauca Valley, 1; Peque (alt. 5,000 ft.), Antioquia, 2.



*Henicorhina prosthaleuca albilateralis* Chapman, Bull. Amer. Mus. N. H., 36, p. 524, 1917—El Consuelo, west slope of eastern Andes above Honda, Rio Frio near Cartago (Cauca Valley), and Peque, west slope of western Andes, Colombia (type from El Consuelo in the American Museum of Natural History, New York, examined).

**Range.**—Tropical and Lower Subtropical zones of Colombia in the valleys of the Magdalena and Cauca rivers, extending through Antioquia to the west slope of the western Andes at the sources of the Rio Sucio (Peque).

***Henicorhina leucosticta darienensis* Hellmayr.<sup>1</sup> DARIEN WOOD WREN.**

*Henicorhina leucosticta darienensis* Hellmayr, Anz. Orn. Ges. Bay., 1, No. 4, p. 25, 1921—Tacarcuna, eastern Panama (type in Munich Museum); Bangs and Barbour, Bull. Mus. Comp. Zool., 65, p. 222, 1922—Rio Esnápe and Jesusito, Darien; Griscom, l.c., 69, p. 182, 1929—Cana, Panama.

*Henicorhina leucosticta* (not *Cyphorhinus leucostictus* Cabanis) Chapman, Bull. Amer. Mus. N. H., 36, p. 522, 1917—part, Alto Bonito, and Dabeiba, lower Atrato, Colombia, and eastern Panama (Tacarcuna and Tapaliza).

**Range.**—Tropical zone of eastern Panama (Darien) and the adjacent section of northwestern Colombia (lower Atrato and Rio Sucio).

**\**Henicorhina leucosticta pittieri* Cherrie.<sup>2</sup> PITTIER'S WOOD WREN.**

*Henicorhina pittieri* Cherrie, Anal. Inst. Fis.-Geog. Mus. Nac. Costa Rica, 4, p. 134, 1893—Boruca (type) and Térraba, southwestern Costa Rica (type from Boruca in Museo Nacional, Costa Rica; idem, Expl. Zool. en

<sup>1</sup>*Henicorhina leucosticta darienensis* Hellmayr: Not unlike *H. l. albilateralis*, but markedly smaller; pileum entirely black; rufous of back brighter; sides of head much more heavily streaked with black, bounded beneath by a distinct black submalar stripe; black barring of wings more pronounced; flanks much deeper rufous brown. Wing (males), 55–58; tail, 24–28; bill, 15–16½.

The black pileum serves to distinguish this race from *H. l. tropaea* and *H. l. pittieri*, to the former of which it bears a strong resemblance in general coloration.

**Material examined.**—Panama: Tacarcuna, 5.—Colombia: Alto Bonito (alt. 1,500 ft.), Rio Sucio, 2.

<sup>2</sup>*Henicorhina leucosticta pittieri* Cherrie: Similar to *H. l. tropaea*, but upper parts brighter chestnut; median crown-stripe decidedly more rufescent, only slightly duller than back; flanks more russet. Wing, 59–60, (female) 57; tail, 26–31; bill, 15–16½.

Birds from Panama are smaller (wing of males, 55–57; of females, 54–56) as well as deeper castaneous above, thus verging in the direction of *H. l. inornata*, which one specimen from Bugaba, Chiriquí, also approaches in having the basal half of the lower mandible distinctly light-colored.

**Material examined.**—Costa Rica: Boruca, 3; Térraba, 1; El General, 3.—Panama: Boquete, Chiriquí, 1; Bugaba, Chiriquí, 2; El Banco, Chiriquí, 1; Natá, Coclé, 1; Panama Railroad, 1.

Costa Rica en 1891-92, p. 8, 1893 (reprint); Hellmayr, Journ. Orn., 51, p. 529, 1903—Boruca (crit.).<sup>1</sup>

*Henicorhina prosthaleuca pittieri* Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 612, 1904—part, Costa Rica (Boruca and Térraba) and Isthmus of Panama; Bangs, Auk, 24, p. 305, 1907—Boruca; idem, Proc. Biol. Soc. Wash., 22, p. 34, 1909—southwestern Costa Rica (crit.); Carriker, Ann. Carnegie Mus., 6, p. 763, 1910—La Lagunaria de Dota, Boruca, and Ujurrás de Térraba, Costa Rica (crit.); Stone, Proc. Acad. Nat. Sci. Phila., 70, p. 271, 1918—Gatun, Panama; Hallinan, Auk, 41, p. 325, 1924—Rio Velazquez, Panama Canal Zone.

*Cyphorhinus leucostictus* (not of Cabanis) Lawrence, Ann. Lyc. Nat. Hist. N. Y., 7, p. 320, 1862—Lion Hill, Panama.

*Microcerculus leucostictus* Selater and Salvin, Proc. Zool. Soc. Lond., 1864, p. 345—Isthmus of Panama.

*Heterorhina leucosticta* Baird, Rev. Amer. Bds., 1, p. 117, 1864—part, Panama Railroad.

*Thryothorus leucostictus* Salvin, Proc. Zool. Soc. Lond., 1867, p. 134—Santa Fé, Veraguas.

*Henicorhina leucosticta* Salvin, Proc. Zool. Soc. Lond., 1870, p. 181—Boquete de Chitrá and Cordillera del Chucú, Veraguas; Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 79, 1880—part, Panama localities.

*Henicorhina prosthaleuca* (not *Scytalopus prosthaleucus* Selater) Sharpe, Cat. Bds. Brit. Mus., 6, p. 286, 1881—part, Veragua and Panama; Bangs, Proc. New Engl. Zool. Cl., 3, p. 55, 1902—Volcan de Chiriquí, Panama; Hellmayr, Journ. Orn., 51, p. 529, 1903—part, Boquete, Chiriquí, and Natá, Veraguas.

*Range*.—Extreme southwestern Costa Rica, north to the Dota Mountains, and western Panama, east to the Canal Zone.

5: Costa Rica (Volcan de Oso, 2; Boruca, 2; Térraba, 1).

**\**Henicorhina leucosticta tropaea* Bangs and Peters.<sup>2</sup> CENTRAL AMERICAN WOOD WREN.**

*Henicorhina prosthaleuca tropaea* Bangs and Peters, Bull. Mus. Comp. Zool., 67, p. 480, 1927—La Vijagua, eastern Costa Rica (type in Museum of Comparative Zoology, Cambridge, Mass.); Peters, l.c., 69, p. 458, 1929—Lancetilla, Honduras (crit.); idem, l.c., 71, p. 332, 1931—Almirante and Crimacola, northwestern Panama.

*Cyphorhinus leucostictus* (not of Cabanis) Lawrence, Ann. Lyc. Nat. Hist. N. Y., 8, p. 92, 1868—Angostura and Turrialba, Costa Rica; Frantz, Journ. Orn., 17, p. 291, 1869—Costa Rica.

<sup>1</sup> Critical notes on a male topotype, collected by George K. Cherrie, at Boruca, on December 16, 1891, in the Tring Museum.

<sup>2</sup> *Henicorhina leucosticta tropaea* Bangs and Peters: Very near *H. l. prosthaleuca*, but central crown-stripe more reddish brown; back and flanks more rufescent; chest and breast more purely white, less shaded with grayish.

*Additional material examined*.—Nicaragua: Matagalpa, 1.—Costa Rica: San Carlos, 1; La Vijagua, 4; Tenorio, 3; Miravalles, 5; Turrialba, 2; Tuis, 1; Siquirres, 7; Boca Matina, 2.

*Henicorhina leucosticta* Boucard, Proc. Zool. Soc. Lond., 1878, p. 51—San Carlos and Orosi, Costa Rica; Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 79, 1880—part, Costa Rica; Zeledón, Anal. Mus. Nac. Costa Rica, 1, p. 105, 1887—part, Costa Rica (Jiménez and Angostura); Ridgway, Proc. U. S. Nat. Mus., 6, p. 398, 1886—Los Sábalos, Nicaragua; idem, l.c., 10, p. 585, 1888—Segovia River, Honduras.

*Heterorhina leucosticta* [sic] Lantz, Trans. Kansas Acad. Sci., 16, p. 224, 1899—San Juan Valley, Costa Rica.

*Henicorhina prosthaleuca* (not *Scytalopus prosthaleucus* Sclater) Sharpe, Cat. Bds. Brit. Mus., 6, p. 286, 1881—part, Costa Rica; Cherrie, Proc. U. S. Nat. Mus., 14, p. 518, 1891—Costa Rica (crit.); Richmond, l.c., 16, p. 482, 1893—Rio Escondido, Nicaragua; Hellmayr, Journ. Orn., 51, p. 529, 1903—part, Costa Rica (crit.); Bangs, Bull. Mus. Comp. Zool., 39, p. 152, 1903—Yaruca, Honduras.

*Henicorhina prosthaleuca prosthaleuca* Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 610, 1904—part, Honduras and Nicaragua; Bangs, Proc. Biol. Soc. Wash., 22, p. 34, 1909—eastern Costa Rica (crit.); Carriker, Ann. Carnegie Mus., 6, p. 762, 1910—Caribbean side and Pacific slope south to the Gulf of Nicoya, Costa Rica (crit.).

*Henicorhina prosthaleuca pittieri* (not of Cherrie) Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 612, 1904—part, Costa Rica (Angostura, Turrialba, Tucuriquí, Jiménez, Siquirres, San Carlos, Orosi, Talamanca); Ferry, Field Mus. Nat. Hist., Orn. Ser., 1, p. 273, 1910—Guayábo, Costa Rica.

*Range*.—Honduras, Nicaragua, the greater part of Costa Rica (Caribbean side and Pacific slope, south to the Gulf of Nicoya), and extreme northwestern Panama (Almirante Bay region).

14: Nicaragua (San Emilio, Lake Nicaragua, 3; San Rafael del Norte, 1); Costa Rica (Siquirres, 3; Matina, 1; Tenorio, 1; Miravalles, 1; Peralta, 1; Guayábo, 1; El Hogar, 2).

**\**Henicorhina leucosticta prosthaleuca* (Sclater). SCLATER'S WOOD WREN.**

*Scytalopus prosthaleucus* Sclater, Proc. Zool. Soc. Lond., 24, "1856," p. 290, pub. Jan., 1857—Cordoba, Vera Cruz, Mexico (type in coll. of P. L. Sclater, now in British Museum).

*Cyphorhinus prosthaleucus* Sclater, Proc. Zool. Soc. Lond., 26, p. 96, 1858—southern Mexico; idem, l.c., 27, p. 363, 1859—vicinity of Jalapa, Vera Cruz; idem, l.c., p. 372, 1859—Llano Verde and Playa Vicente, Oaxaca; Sclater and Salvin, Ibis, 1860, p. 397—Choctum, Vera Paz, Guatemala; Sclater, Cat. Coll. Amer. Bds., p. 20, 1862—Cordoba, Mexico, and Vera Paz, Guatemala.

*Heterorhina prosthaleuca* Baird, Rev. Amer. Bds., 1, p. 116, 1864—Choctum, Vera Paz, and Mirador, Mexico; Sumichrast, Mem. Bost. Soc. N. H., 1, p. 545, 1869—part, hot region of Vera Cruz, Mexico.

*Henicorhina prosthaleuca* Sharpe, Cat. Bds. Brit. Mus., 6, p. 286, 1881—part, Cordoba, Mexico, and Guatemala; Hellmayr, Journ. Orn., 51, p. 529, 1903—part, Chiapas and Guatemala (crit.); Dearborn, Field

Mus. Nat. Hist., Orn. Ser., 11, p. 133, 1907—Los Amates and Patulul, Guatemala.

*Henicorhina prosthaleuca prosthaleuca* Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 610, 1904—part, Mexican and Guatemalan references and localities; Peters, Auk, 30, p. 377, 1913—Camp Mengel, Quintana Roo; Bangs and Peters, Bull. Mus. Comp. Zool., 67, p. 480, 1927—Presidio and Motzorongo, Vera Cruz (crit.); Austin, l.c., 69, p. 386, 1929—Cayo district, British Honduras.

*Cyphorhinus leucostictus* Cabanis, Arch. Naturg., 13, (1), p. 206, 1847—part, Papantla, Mexico; Lawrence, Bull. U. S. Nat. Mus., 4, p. 13, 1876—Guichicovi, Oaxaca.

*Henicorhina leucosticta* (not of Cabanis) Boucard, Ann. Soc. Linn. Lyon, (n.s.), 25, p. 39, 1878—Guatemala; Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 79, 1880—part, Mexican and Guatemalan localities; Ferrari-Perez, Proc. U. S. Nat. Mus., 9, p. 136, 1886—Teziutlan, Puebla.

*Range*.—Southeastern Mexico, in states of Vera Cruz, Puebla, Oaxaca, Tabasco, Chiapas, Campeche, and Quintana Roo, south through Guatemala to British Honduras (Cayo district).<sup>1</sup>

8: Guatemala (Vera Paz, 2; Patulul, Solola, 4; Los Amates, Izabal, 2).

**\**Henicorhina leucophrys leucophrys* (Tschudi). WHITE-BROWED WOOD WREN.**

*Troglodytes leucophrys* Tschudi, Arch. Naturg., 10, (1), Heft 3, p. 282, May, 1844—Peru (type in Neuchâtel Museum); idem, Unters. Faun. Peru., Aves, p. 185, 1846—forest districts of "northeastern Peru"—Montaña del Vitoc, Dept. Junín (cf. Tschudi, Peru, Reiseskizzen, 2, p. 255, 1846).

*Troglodytes guttatus* Hartlaub, Syst. Verz. Samml. Ges. Museum Bremen, 1, p. 28, 1844<sup>2</sup>—"Neugranada" (type in Bremen Museum examined).

*Henicorhina leucophrys berlepschi* Ridgway, Proc. Biol. Soc. Wash., 16, p. 168, 1903—Chimbo, western Ecuador (type in the American Museum of Natural History, New York).

*Cyphorhinus leucophrys* Cabanis, Arch. Naturg., 13, (1), p. 206, 1847 (ex Tschudi).

*Cyphorhinus griseicollis* (not *Merulaxis griseicollis* Lafresnaye) Sclater, Proc. Zool. Soc. Lond., 28, p. 64, 1860—Pallatanga, Ecuador; idem, Cat. Coll. Amer. Bds., p. 19, 1862—Pallatanga and Bogotá.

<sup>1</sup> Guatemalan skins, while somewhat browner on the head and darker on the flanks than typical Mexican birds, seem, as a whole, better referred to *prosthaleuca*, although in characters they are decidedly intermediate to *tropaea*. This disposition is also shared by Mr. Peters, who extends the range of *prosthaleuca* even to British Honduras, whence we have no material.

*Material examined*.—Mexico: Vera Cruz (Jalapa, etc.), 5; Amatan, Chiapas, 2.—Guatemala: Vera Paz, 8; Los Amates, Izabal, 2; Patulul, Solola, 4.

<sup>2</sup> Having no information as to its exact date of publication, I merely follow general custom in according *Troglodytes leucophrys* Tschudi priority over *T. guttatus* Hartlaub. If the "Verzeichnis" should turn out to have appeared prior to Part 3 of the "Archiv für Naturgeschichte," Hartlaub's term would have to be adopted as specific name for the Gray-breasted Wood Wren.

*Heterorhina griseicollis* Baird, Rev. Amer. Bds., 1, p. 117, 1864—part, Ecuador, Bogotá.

*Henicorhina leucophrys* Taczanowski, Proc. Zool. Soc. Lond., 1874, p. 504—Sillapata, Peru; idem, l.c., 1879, p. 223—Tambillo, Peru; Sclater and Salvin, l.c., 1879, p. 493—Frontino, Antioquia; Berlepsch and Taczanowski, l.c., 1883, p. 539—Chimbo, Ecuador; idem, l.c., 1885, p. 92—Machay, Ecuador; Sharpe, Cat. Bds. Brit. Mus., 6, p. 288, 1881—part, Peru, Ecuador, and Colombia (Bogotá, Antioquia, Santa Elena); Taczanowski, Orn. Pér., 1, p. 512, 1884—Sillapata and Tambillo, Peru; Berlepsch and Stolzmann, Proc. Zool. Soc. Lond., 1896, p. 328—Garita del Sol, Peru; Goodfellow, Ibis, 1901, p. 312—eastern and western Andes of Ecuador; Berlepsch and Stolzmann, Ornith., 13, pp. 74, 106, 1906—Idma, Santa Ana, and Huaynapata, Peru; Ménégau, Miss. Serv. Géog. Armée Mes. Arc Mérid. Equat., 9, p. B 68, 1911—Mindó, Ecuador.<sup>1</sup>

*Henicorhina leucophrys leucophrys* Hellmayr, Journ. Orn., 51, p. 531, 1903—part, Peru and Ecuador; Chapman, Bull. U. S. Nat. Mus., 117, p. 103, 1921—Idma, San Miguel Bridge, and Torontoy, Urubamba, Peru; idem, Bull. Amer. Mus. N. H., 55, p. 572, 1926—Pagma Forest, Verdecocha, Mindó, Pedregal, Cerro Manglar Alto, Bucay, Naranjo, Chimbo, Rios Coco and Chimbo, Sabanilla, Zamora, Baeza, below Oyacachi, and Sumaco River, Ecuador (crit.); Zimmer, Field Mus. Nat. Hist., Zool. Ser., 17, p. 408, 1930—Vista Alegre and Chinchao, Huánuco, Peru (crit.).

*Henicorhina hilaris* Berlepsch and Taczanowski, Proc. Zool. Soc. Lond., 1884, p. 284—part, spec. from Pedregal, Ecuador; Ménégau, Miss. Serv. Géogr. Armée Mes. Arc Mérid. Equat., 9, p. B 68, 1911—Gualala; Lönnberg and Rendahl, Ark. Zool., 14, No. 25, p. 77, 1922—Mindó, Ecuador.

*Henicorhina leucophrys guttata* Hellmayr, Journ. Orn., 51, pp. 530, 531, 1903—part, Colombia (Bogotá and western Andes above Buenaventura); Bangs, Proc. Biol. Soc. Wash., 21, p. 159, 1908—San Antonio, western Andes, Colombia (crit.); Chapman, Bull. Amer. Mus. N. H., 36, p. 525, 1917—part, western Andes (La Frijolera, Névita Trail, Las Lomitas, San Antonio, Cerro Munchique), central Andes (Miraflores, Salento, Santa Elena, Río Toché, El Eden, La Palma, La Candela), and west slope of eastern Andes (Andalucia, Subia, Fusugasugá, Aguadita, El Roble, Chipaque), Colombia (crit.).

**Range.**—Subtropical zone of Peru, Ecuador (except southwestern and extreme northwestern sections), and Colombia (except eastern slope of eastern Andes, Santa Marta region, and extreme southern end of western Andes).<sup>2</sup>

<sup>1</sup>M. Berlioz, who, on my request, reexamined the material in the Rivet Collection, writes that both specimens are referable to *H. l. leucophrys*, the one from Mindó being immature, while the other, named *H. hilaris* by Ménégau, is an adult bird.

<sup>2</sup>Subdivision of this form, which was at one time advocated by myself, Bangs, and Chapman, seems to be impracticable in the light of the much more comprehensive material now available. Comparison with adequate series from the western and eastern slopes of the east Colombian Andes shows the type of *T. guttatus*, courteously lent by Dr. H. Schauinsland of the Bremen Museum, to be unquestionably referable to the race of the Gray-breasted Wood Wren occurring

14: Peru (Vista Alegre, Huánuco, 3; Chinchao, Huánuco, 1; Uchco, 2; Molinopampa, 1); Colombia ("Bogotá," 3; Subia, near La Mesa, Cundinamarca, 1; Andalucia, Huila, 1; Cachiri, Santander, 2).

***Henicorhina leucophrys boliviana* Todd.<sup>1</sup> BOLIVIAN WOOD WREN.**

*Henicorhina leucophrys boliviana* Todd, Proc. Biol. Soc. Wash., 45, p. 10, 1932—Incachaca, Dept. Cochabamba, Bolivia (type in Carnegie Museum).

*Henicorhina leucophrys* (not *Troglodytes leucophrys* Tschudi) Sclater and Salvin, Proc. Zool. Soc. Lond., 1879, p. 593—Tilotilo, Bolivia; Sharpe, Cat. Bds. Brit. Mus., 6, p. 288, 1881—part, Bolivia.

in the Magdalena Valley. Although mounted, the type—an adult bird in fresh plumage—is in excellent state of preservation and does not appear to have suffered any fading. In the coloration of the under parts (plain white throat with merely a few faint dusky streaks in the malar region; pale gray foreneck and breast; light buckthorn brown flanks and crissum) it is an exact duplicate of an adult male from Pueblo Nuevo, Santander (Carnegie Museum, No. 55256); above, it resembles a male from La Palmita, Santander (Carnegie Museum, No. 54953) in the dull Prout's brown pileum, whereas the back is somewhat lighter, more as in a female from Las Ventanas, Santander (Carnegie Museum, No. 57835). Its dimensions (wing, 57; tail, 32; bill, 14) correspond to those of males from the Magdalena slope of the eastern Andes, to which the name *guttatus* is thus strictly applicable. I do not see, however, any constant difference between twenty specimens from that part of Colombia and a good series of typical *leucophrys* from Peru, though the crown perhaps averages slightly darker in the latter. Neither the extent and intensity of the rufous on the flanks nor the barring of the tail seems to afford a useful criterion for the recognition of more than one race. From the western Andes of Colombia I have very little material, but the two specimens, both from San Antonio, one sooty-crowned, the other with dull Prout's brown pileum, can be matched by numerous Peruvian and east Colombian individuals, and tend to corroborate Chapman's dictum that they are inseparable from the last-named. They are, however, easily distinguished from *H. l. brunneiceps*, the range of which I would restrict to the extreme southern end of the western Andes and the adjacent section of northern Ecuador.

Five adults from Papallacta, eastern Ecuador, agree with the average from Peru and Colombia, and, in spite of the inexplicable distribution, I cannot but concur with Dr. Chapman, that birds from the middle section of western Ecuador (Chimbo, Pedregal, Mindo, Pichincha), which were described as *H. l. berlepschi* by Ridgway, cannot be separated either.

*Material examined*.—Peru: Occobamba, Cuzco, 1; Caradoc, Marcapata Val, 1; Idma, Santa Ana, 3; Garita del Sol, Vitoc, Junín, 2; Chinchao, Huánuco, 1; Vista Alegre, Huánuco, 3; Cueva Secca, Rio Tocache, 1; Uchco, 2; Molinopampa, 1.—Ecuador: Chimbo, 3; Pedregal, 1; Mindo, 1; Pichincha, 3; Papallacta, 5.—Colombia: San Antonio, western Andes, 2; La Palmita, Santander, 3; Cachiri, Santander, 4; Pueblo Nuevo, Santander, 1; La Pica, Santander, 2; Las Ventanas, Santander, 2; Ramirez, Santander, 1; Subia, near La Mesa, Cundinamarca, 1; "Bogotá," 7; Andalucia, Huila, 1.

<sup>1</sup>*Henicorhina leucophrys boliviana* Todd: Exceedingly close to *H. l. leucophrys*, but with the throat more decidedly streaked, and the brown color of the flanks duller, less rufescent, as well as more restricted. Size about the same. Wing, 51–55; tail, 27–31; bill, 14–15.

This is rather a poorly marked race, of which I should like to see a larger series. The faint grayish cross-bars in the middle of the abdomen alluded to by the describer I find in only two out of five Bolivian birds, whereas they are also present in a number of Peruvian specimens and even in a few individuals of *H. l. brunneiceps*.

*Material examined*.—Bolivia, Dept. La Paz: Sandillani, 1; San Antonio, 1; Chaco, near La Paz, 1; Cillutincara, 1; San Jacinto, 1.

*Henicorhina leucophrys leucophrys* Hellmayr, Journ. Orn., 51, p. 531, 1903—part, Bolivia.

**Range.**—Subtropical zone of Bolivia, in depts. of La Paz and Cochabamba.

***Henicorhina leucophrys hilaris* Berlepsch and Taczanowski.<sup>1</sup>  
BERLEPSCH'S WOOD WREN.**

*Henicorhina hilaris* (Stolzmann MS.) Berlepsch and Taczanowski, Proc. Zool. Soc. Lond., 1884, p. 284—part, Cayandeled and Chaguarpata, Ecuador (type from Chaguarpata in Warsaw Museum; cf. Sztolcman and Domaniewski, Ann. Zool. Mus. Pol. Hist. Nat., 6, p. 154, 1928); Hellmayr, Journ. Orn., 51, p. 531, 1903—part, western Ecuador.

*Henicorhina hilaris hilaris* Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 609, 1904—Cayandeled and Chaguarpata, Ecuador (diag.).

*Henicorhina leucophrys hilaris* Chapman, Bull. Amer. Mus. N. H., 55, p. 573, 1926—junction Chanchan and Chiguancay, El Chiral, La Puente, Zaruma, Punta Santa Ana, Salvias, Alamor, San Bartolo, Las Piñas, and Celica, southwestern Ecuador (crit.).

**Range.**—Subtropical zone of southwestern Ecuador, north to the Chimbo Valley.

***Henicorhina leucophrys brunneiceps* Chapman.<sup>2</sup> BROWN-  
HEADED WOOD WREN.**

*Henicorhina leucophrys brunneiceps* Chapman, Bull. Amer. Mus. N. H., 33, p. 181, 1914—Gallera (alt. 5,700 ft.), western Andes, Colombia (type

<sup>1</sup> *Henicorhina leucophrys hilaris* Berlepsch and Taczanowski: Similar to *H. l. leucophrys*, but foreneck and breast much paler, nearly grayish white, and the fulvous color of the flanks much more extensive, leaving but a narrow buffy or pale rufescent zone along the abdominal line. Wing, 54–55, (female) 53; tail, 29, (female) 23; bill, 14–15.

The relationship of this form can hardly be ascertained with the limited material at our disposal. Dr. Chapman considers it a local representative of *H. leucophrys*, which it replaces in southwestern Ecuador and with which it intergrades in the Chimbo Valley. Curiously enough, birds from the central parts of western Ecuador seem to be inseparable from *H. l. leucophrys*, although in its extreme northern section another well-characterized form, *H. l. brunneiceps*, is met. We confess that this anomaly in distribution is rather puzzling and yet requires satisfactory explanation.

**Material examined.**—Western Ecuador: Cayandeled, 2; Chaguarpata, 2.

<sup>2</sup> *Henicorhina leucophrys brunneiceps* Chapman: Nearest to *H. l. leucophrys*, but with heavier, though not longer bill; back, wings, and tail decidedly brighter, more ferruginous, this color extending in a broad zone over the median portion of the pileum to the base of the culmen, whereas in the typical race the upper part of the head is of a dull olivaceous or mummy brown, much less rufescent than the back; throat is distinctly streaked with blackish; gray of breast darker; flanks and under tail coverts very much deeper, dark antique brown rather than buckthorn brown. Wing, (male) 55–58, (female) 52–54; tail, 26, (female) 21–23; bill, 15–16.

The brighter rufous upper parts with the pileum of practically the same color as the back, the much deeper rufous flanks, the darker gray breast, and the conspicuously black-streaked throat render this form easily distinguishable from



in the American Museum of Natural History, New York); idem, l.c., 36, p. 527, 1917—Gallera, Cocal, and Ricaurte, southwestern Colombia.<sup>1</sup>

**Range.**—Subtropical zone of the western Andes in southwestern Colombia (Gallera and Cocal, Rio Coco, Cauca; Ricaurte, Nariño) and extreme northwestern Ecuador (Paramba and Rio Verde, Prov. Imbabura).

**\**Henicorhina leucophrys meridana* Todd.<sup>2</sup> MÉRIDA WOOD WREN.**

*Henicorhina leucophrys meridana* Todd, Proc. Biol. Soc. Wash., 45, p. 11, 1932—Heights of Tabay, Mérida (type in Carnegie Museum).

*Henicorhina leucophrys* (not *Troglodytes leucophrys* Tschudi) Sclater and Salvin, Proc. Zool. Soc. Lond., 1870, p. 780—upper wood region of Mérida, Venezuela; Sharpe, Cat. Bds. Brit. Mus., 6, p. 288, 1881—part, Venezuela.

*Henicorhina leucosticta* (not *Cyphorhinus leucostictus* Cabanis) Tristram, Cat. Coll. Bds., p. 168, 1889—Mérida, "Ecuador"—Venezuela.

*Henicorhina leucophrys guttata* (not *Troglodytes guttatus* Hartlaub) Hellmayr, Journ. Orn., 51, pp. 530, 531, 1903—part, Mérida, Venezuela; Chapman,

*H. l. leucophrys.* These characters stand out very well in a series from extreme northern Ecuador. Only one specimen has the crown nearly as dull brown as *leucophrys*, while one other agrees with the latter in having merely a few obsolete dusky freckles on the throat. One specimen each from Gallera and Cocal in the collection of the American Museum of Natural History is similar to the Ecuadorian series.

*H. l. brunneiceps* has a peculiarly restricted range, which seems to be confined to the southern end of the west Colombian Andes from the sources of the Rio Coco southwards and the adjacent section of northern Ecuador. It inhabits the lower part of the Subtropical zone, all the recorded specimens having been obtained at altitudes between 3,200 and 6,000 feet.

**Material examined.**—Colombia, State of Cauca: Gallera (alt. 5,700 ft.), 1; Cocal (alt. 6,000 ft.), 1.—Ecuador, Prov. Imbabura: Rio Verde (alt. 3,200 ft.), 3; Paramba (alt. 3,500 ft.), 6.

<sup>1</sup> The specimen from Névita Trail, in the Rio San Juan section, recorded under that name by Chapman is probably an abnormally colored individual of the ordinary form found in that region, viz. *H. l. leucophrys*.

<sup>2</sup> *Henicorhina leucophrys meridana* Todd: Nearest to *H. l. leucophrys*, but throat much more profusely, often regularly streaked with blackish; breast deeper, almost slate gray; flanks and under tail coverts much richer and more rufescent, deep antique brown to argus brown instead of buckthorn brown. Wing, 54–59, (female) 53–54; tail, 30–35, (female) 27–30; bill, 13½–15.

A large series from the Cordillera of Mérida, when compared with birds from the Magdalena slope of the east Colombian Andes, Ecuador, and Peru, is easily told apart by the above characters, although, just as in other forms, there is a certain amount of individual variation. Some specimens, notably an adult male from La Cuchilla (Carnegie Museum, No. 89450), in striping of throat and deep gray breast, closely approach *H. l. collina*, whereas others with less heavily marked throat and paler gray breast can be nearly matched by certain unusually dark individuals from Peru and the west slope of the east Colombian Andes. Birds from Páramo de Tamá, Santander, and Rio Negro, Boyacá, form the transition to *H. l. leucophrys*, but are nearer to the Mérida form.

**Material examined.**—Venezuela, Cordillera of Mérida: Heights of Tabay, 2; La Cuchilla, 7; Escorial, 1; El Valle, 2; Culata, 1; Nevados, 1; Los Duramos, 1; Mérida, 3.—Colombia: Páramo de Tamá, Santander, 5; Rio Negro, Boyacá, 3, "Bogotá," 2.



Bull. Amer. Mus. N. H., 36, p. 525, 1917—part, Buena Vista, east slope of eastern Andes, Colombia.

*Range*.—Subtropical zone of western Venezuela (Cordillera of Mérida) and eastern slope of eastern Andes of Colombia (Páramo de Tamá, Santander; Rio Negro, Boyacá; Buena Vista, near Villavicencio).

5: Colombia (Páramo de Tamá, Santander, 5).

***Henicorhina leucophrys bangsi* Ridgway.<sup>1</sup> BANGS'S WOOD WREN.**

*Henicorhina hiliaris bangsi* Ridgway, Proc. Biol. Soc. Wash., 16, p. 168, Nov., 1903—San Francisco, Santa Marta, Colombia (type in U. S. National Museum); idem, Bull. U. S. Nat. Mus., 50, Part 3, p. 610, 1904—mountains of Santa Marta, Colombia (alt. 3,000 to 8,000 ft.) (diag.); Allen, Bull. Amer. Mus. N. H., 21, pp. 278, 293, 1905—Valparaiso (nest descr.); Todd and Carriker, Ann. Carnegie Mus., 14, p. 414, 1922—San Miguel, Chirua, La Concepción, El Libano, Valparaiso, Cincinnati, Las Taguas, Las Vegas, Minca, Pueblo Viejo, and Heights of Chirua (crit., habits, nest, and eggs).

*Henicorhina leucophrys* (not *Troglodytes leucophrys* Tschudi) Bangs, Proc. Biol. Soc. Wash., 12, p. 160, 1898—Pueblo Viejo (alt. 8,000 ft.); idem, l.c., 12, p. 181, 1898—San Francisco (alt. 6,000 ft.), Palomina (alt. 5,000 ft.), and San Miguel (alt. 7,500 ft.); idem, Proc. New Engl. Zool. Cl., 1, pp. 83, 84, 1899—mountain forests of Santa Marta Mountains up to 8,000 feet (descr., crit.); Allen, Bull. Amer. Mus. N. H., 13, p. 180, 1900—Valparaiso (alt. 4,500 to 5,500 ft.) and El Libano (alt. 6,000 ft.).

*Henicorhina hiliaris* (not of Berlepsch and Taczanowski) Hellmayr, Journ. Orn., 51, p. 531, 1903—part, Santa Marta region, Colombia.

*Range*.—Upper Tropical and Subtropical zones of Santa Marta Mountains (alt. 2,000–7,000 ft.), Colombia.

**\**Henicorhina leucophrys anachoreta* Bangs.<sup>2</sup> SANTA MARTA WOOD WREN.**

<sup>1</sup>*Henicorhina leucophrys bangsi* Ridgway: Similar to *H. l. hiliaris*, but throat and breast even paler grayish white, this color extending down to the middle of the abdomen, only the flanks and under tail coverts being buckthorn brown; feet stronger. Wing, 54–57, (female) 52–54; tail, 27–31, (female) 25–27; bill, 14–15.

Rather an unsatisfactory race, which I am, however, unwilling to unite with *H. l. hiliaris* in view of its isolated range.

*Material examined*.—Colombia, Santa Marta region: Chirua, 2; San Miguel, 2; La Concepción, 2; Valparaiso, 2; Las Taguas, 1.

<sup>2</sup>*Henicorhina leucophrys anachoreta* Bangs: Differs from *H. l. bangsi* in shorter bill, dusky-streaked throat, distinctly gray foreneck and breast, and less rufescent upper parts and flanks. Wing, 56, (female) 53; tail, 28, (female) 27–28; bill, 12–13.

The specimen from San Lorenzo is decidedly intermediate between two topotypes from Páramo de Chiriqua and the series of *H. l. bangsi*, from lower altitudes, which it obviously represents at high elevations.

*Material examined*.—Colombia: Páramo de Chiriqua (alt. 12,000 ft.), 2; Páramo de Macotama (alt. 11,000 ft.), 1; San Lorenzo (alt. 9,300 ft.), 1.

*Henicorhina anachoreta* Bangs, Proc. New Engl. Zool. Cl., 1, p. 84, 1899—Páramo de Chiriqua (alt. 12,000 ft.), Colombia (type in coll. Bangs, now in Museum of Comparative Zoology, Cambridge, Mass.; cf. Bangs, Bull. Mus. Comp. Zool., 70, p. 320, 1930); Allen, Bull. Amer. Mus. N. H., 13, p. 180, 1900—Páramo de Chiriqua (ex Bangs); Hellmayr, Journ. Orn., 51, p. 531, 1903—Sierra Nevada de Santa Marta.

*Henicorhina hiliaris anachoreta* Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 609, 1904—high mountains of Santa Marta (alt. 11,000 to 12,000 ft.) (diag.).

*Henicorhina leucophrys anachoreta* Todd and Carriker, Ann. Carnegie Mus., 14, p. 416, 1922—San Lorenzo, Sierra Nevada de Santa Marta, San Miguel, Macotama, and Páramo de Macotama (crit., habits).

**Range.**—Upper Subtropical and Temperate zones of Santa Marta Mountains (alt. 8,000–12,000 ft., rarely below), Colombia.

1: Colombia (San Lorenzo, alt. 9,300 ft., 1).

***Henicorhina leucophrys venezuelensis* Hellmayr.<sup>1</sup> VENEZUELAN WOOD WREN.**

*Henicorhina leucophrys venezuelensis* Hellmayr, Journ. Orn., 51, pp. 530, 531, Oct., 1903—Mount Bucarito, near Tocuyo, Lara, Venezuela (type in Tring Museum); idem and Seilern, Arch. Naturg., 78, A, Heft 5, p. 43, 1912—Cumbre de Valencia, Carabobo (crit.); Hellmayr, l.c., 90, A, Heft 2, p. 152, 1924—Galipán, Cerro del Avila, Caracas region (crit.).

*Henicorhina leucosticta* (not *Cyphorhinus leucostictus* Cabanis) Sclater and Salvin, Proc. Zool. Soc. Lond., 1868, p. 166—Caracas.

**Range.**—Subtropical zone of northern Venezuela, from the vicinity of Caracas west to Lara (Mount Bucarito, near Tocuyo).<sup>2</sup>

**\**Henicorhina leucophrys collina* Bangs. CHIRIQUÍ WOOD WREN.**

*Henicorhina collina* Bangs, Proc. New Engl. Zool. Cl., 3, p. 55, 1902—Boquete, southern slope of Volcan de Chiriquí, Panama (type in coll. Bangs, now in Museum of Comparative Zoology, Cambridge, Mass.; cf. Bangs, Bull. Mus. Comp. Zool., 70, p. 320, 1930).

*Henicorhina leucophrys collina* Hellmayr, Journ. Orn., 51, p. 531, 1903—Costa Rica to Veragua; Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 613, 1904—Chiriquí, Veragua, and Costa Rica (monog.); Carriker,

<sup>1</sup>*Henicorhina leucophrys venezuelensis* Hellmayr: Similar to *H. l. leucophrys* in unstreaked throat, but breast and belly medially whitish, deepening into gray on sides of chest only; middle of abdomen faintly undulated with grayish; flanks much more brownish, less rufescent, this color also much less extensive. Not unlike *H. l. bangsi*, but sides of breast much darker gray, middle of abdomen undulated with grayish, and flanks much less rufescent. Wing, 56–58, (female) 53–55; tail, 26–30, (female) 24–28; bill, 14–16.

**Material examined.**—Venezuela: Caracas, 1; Galipán, Cerro del Avila, Dept. Federal, 10; Cumbre de Valencia, Carabobo, 13; Mount Bucarito, near Tocuyo, Lara, 3.

<sup>2</sup>The locality "Caripé," in State of Sucre, northeastern Venezuela, whence there are four specimens collected by A. Mocquerys in the Tring Museum, is open to question.

Ann. Carnegie Mus., 6, p. 761, 1910—mountains of Costa Rica (habits, nest, and eggs).

*Heterorhina leucophrys* (not *Troglodytes leucophrys* Tschudi) Baird, Rev. Amer. Bds., 1, p. 118, 1864—San José, Costa Rica (crit.).

*Cyphorhinus leucophrys* Lawrence, Ann. Lyc. Nat. Hist. N. Y., 8, p. 92, 1868—San José, Costa Rica; Frantzius, Journ. Orn., 17, p. 291, 1869—La Palma, Costa Rica.

*Henicorhina leucophrys* Salvin, Proc. Zool. Soc. Lond., 1870, p. 181—Calovévora, Chiriquí, Cordillera del Chucú (Veraguas), and Mina de Chorchá (Chiriquí); Boucard, l.c., 1878, p. 51—Navarro, Costa Rica; Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 80, 1880—part, Costa Rica and Panama; Sharpe, Cat. Bds. Brit. Mus., 6, p. 288, 1881—part, Costa Rica and Panama; Zeledón, Anal. Mus. Nac. Costa Rica, 1, p. 105, 1887—Santa Ana, La Palma de San José, and Naránjo de Cartago, Costa Rica; Ridgway, Proc. U. S. Nat. Mus., 5, p. 494, 1882—Irazú, Costa Rica; Cherrie, l.c., 14, p. 518, 1891—Volcan de Póas and El Achioté, Costa Rica (crit.); Underwood, Ibis, 1896, p. 433—Miravalles, Costa Rica.

*Range*.—Subtropical zone of Costa Rica and western Panama (Chiriquí and Veraguas).<sup>1</sup>

4: Costa Rica (La Estrella de Cartago, 2; Irazú, 1; Santa Cruz de Turrialba, 1).

### *Henicorhina leucophrys castanea* Ridgway.<sup>2</sup> CHESTNUT WOOD WREN.

*Henicorhina leucophrys castanea* Ridgway, Proc. Biol. Soc. Wash., 16, p. 168, 1903—eastern Guatemala (type in the American Museum of Natural History, New York); idem, Bull. U. S. Nat. Mus., 50, Part 3, p. 615, 1904—eastern Guatemala (monog.); Griscom, Bull. Amer. Mus. N. H., 64, p. 296, 1932—Finca Sepacuite, Guatemala (crit.).

*Heterorhina griseicollis* (not *Merulaxis griseicollis* Lafresnaye) Baird, Rev. Amer. Bds., 1, p. 117, 1864—part, spec. from Guatemala in Lawrence Collection.

*Range*.—Atlantic slope of Guatemala (Vera Paz).<sup>3</sup>

### *Henicorhina leucophrys capitalis* Nelson.<sup>4</sup> GRAY-CROWNED WOOD WREN.

<sup>1</sup> *Material examined*.—Panama: Boquete, Chiriquí, 7; Cordillera del Chucú, Veraguas, 1.—Costa Rica: Irazú, 3; Azahar de Cartago, 3; Quebradilla de Azahar, 1; La Estrella de Cartago, 3; Santa Cruz de Turrialba, 1.

<sup>2</sup> *Henicorhina leucophrys castanea* Ridgway proved to be the representative of this group of wrens on the Atlantic side of Guatemala.

<sup>3</sup> Another race from Honduras has lately been described as *H. leucophrys composita* by Griscom (Proc. New Engl. Zool. Cl., 13, p. 61, 1932).

<sup>4</sup> *Henicorhina leucophrys capitalis* Nelson is closely allied to *H. l. collina*, but less chestnut above with the median portion of the pileum broadly grayish sooty, and somewhat less distinctly streaked on the throat.

We have seen but a single example of this form from the Volcan de Fuego, Guatemala. A specimen from Tumbalá, Atlantic slope of Chiapas, referred here by Ridgway, may prove to belong to *H. l. castanea*.

*Henicorhina leucophrys capitalis* Nelson, Auk, **14**, p. 74, 1897—Pinabete, Chiapas, Mexico (type in U. S. National Museum); Ridgway, Bull. U. S. Nat. Mus., **50**, Part 3, p. 615, 1904—Chiapas and western Guatemala (monog.); Griscom, Bull. Amer. Mus. N. H., **64**, p. 296, 1932—San Lucas, western Guatemala.

*Cyphorhinus prosthleucus* (not *Scytalopus prosthleucus* Sclater) Sclater and Salvin, Ibis, 1860, p. 272—Volcan de Agua, Guatemala.

*Cyphorhinus griseicollis* (not *Merulaxis griseicollis* Lafresnaye) Sclater and Salvin, Ibis, 1860, p. 397—Volcan de Agua, Guatemala.

*Heterorhina griseicollis* Baird, Rev. Amer. Bds., **1**, p. 117, 1864—part, Volcan de Fuego, Guatemala.

*Henicorhina leucophrys* (not *Troglodytes leucophrys* Tschudi) Boucard, Ann. Soc. Linn. Lyon, (n.s.), **25**, p. 39, 1878—Guatemala; Salvin and Godman, Biol. Centr.-Amer., Aves, **1**, p. 80, 1880—part, Guatemala (Volcan de Fuego, Volcan de Agua, and Totonicapam); Sharpe, Cat. Bds. Brit. Mus., **6**, p. 288, 1881—part, Guatemala.

*Range*.—Pacific slope of southern Mexico, in State of Chiapas (Pinabete), and Guatemala (Volcan de Fuego; Volcan de Agua; Totonicapam; San Lucas).

**\*Henicorhina leucophrys mexicana** Nelson. MEXICAN WOOD WREN.

*Henicorhina mexicana* Nelson, Auk, **14**, p. 73, 1897—Jico, Vera Cruz, Mexico (type in U. S. National Museum); Chapman, Bull. Amer. Mus. N. H., **10**, p. 23, 1898—Jalapa (habits); Hellmayr, Journ. Orn., **51**, p. 531, 1903—Mexico (crit.).

*Henicorhina leucophrys mexicana* Ridgway, Bull. U. S. Nat. Mus., **50**, Part 3, p. 616, 1904—southeastern Mexico, in states of Vera Cruz, Puebla, and northern Oaxaca (monog.).

*Heterorhina griseicollis* (not *Merulaxis griseicollis* Lafresnaye) Baird, Rev. Amer. Bds., **1**, p. 117, 1864—part, Jalapa, Mexico.

*Heterorhina prosthleuca* (not *Scytalopus prosthleucus* Sclater) Sumichrast, Mem. Bost. Soc. N. H., **1**, p. 545, 1869—part, Moyoapam, Vera Cruz (nest descr.).

*Henicorhina leucophrys* (not *Troglodytes leucophrys* Tschudi) Salvin and Godman, Biol. Centr.-Amer., Aves, **1**, p. 80, 1880—part, Jalapa and Moyoapam, Vera Cruz; Sharpe, Cat. Bds. Brit. Mus., **6**, p. 288, 1881—part, Jalapa, Mexico.

*Range*.—Subtropical zone of southeastern Mexico, in states of Vera Cruz, Puebla (Huachinango), and northern Oaxaca (Mount Zempoaltepec).<sup>1</sup>

2: Mexico, Vera Cruz (Jalapa, 1; Coatepec, 1).

**Henicorhina leucophrys festiva** Nelson.<sup>2</sup> GUERRERO WOOD WREN.

<sup>1</sup> Additional material examined.—Vera Cruz: Jalapa, 3.

<sup>2</sup> We are not acquainted with this race.

*Henicorhina leucophrys festiva* Nelson, Proc. Biol. Soc. Wash., 16, p. 158, 1903—Omiteme, Guerrero, Mexico (type in U. S. National Museum); Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 616, 1904—southwestern Mexico, in states of Guerrero and Michoacan (monog.).

### Genus NANNORCHILUS Ridgway

*Uropsila* (not *Uropsilus* Edwards, 1872) Selater and Salvin, Nomencl. Av. Neotrop., p. 155, 1873—type, by orig. desig., *Troglodytes leucogastra* Gould.

*Hemiura* (not *Hemiurus* Rudolphi, 1809, nor Gervais, 1855) Ridgway, Proc. U. S. Nat. Mus., 10, "1887," p. 511, Aug., 1888—new name for *Uropsila* Selater and Salvin, preoccupied.

*Nannorchilus* Ridgway, Proc. Biol. Soc. Wash., 17, p. 102, 1904—new name for *Hemiura* Ridgway, preoccupied.

### *Nannorchilus leucogaster pacificus* (Nelson). COLIMA WREN.

*Hemiura pacifica* Nelson, Auk, 14, p. 72, 1897—Manzanillo, Colima (type in U. S. National Museum).

*Nannorchilus leucogaster pacificus* Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 619, 1904—southwestern Mexico, in states of Colima and Guerrero (monog.).

*Range*.—Southwestern Mexico, in states of Colima and Guerrero.

### \**Nannorchilus leucogaster grisescens* Griscom.<sup>1</sup> SAN LUIS POTOSI WREN.

*Nannorchilus leucogaster grisescens* Griscom, Amer. Mus. Nov., 293, p. 4, 1928—Ebano, San Luis Potosi, Mexico (type in the American Museum of Natural History, New York).

*Range*.—Central-eastern Mexico, in State of San Luis Potosi (Ebano, Valles).

1: Mexico (Valles, San Luis Potosi, 1).

### \**Nannorchilus leucogaster leucogaster* (Gould). GOULD'S WHITE-BELLIED WREN.

*Troglodytes leucogastra* Gould, Proc. Zool. Soc. Lond., 4, "1836," p. 89, pub. Feb. 20, 1837—Tamaulipas, Mexico (type now in British Museum).

*Uropsila leucogastra* Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 78, 1880—Tamaulipas and Oaxaca (Playa Vicente); Sharpe, Cat. Bds. Brit. Mus., 6, p. 285, pl. 17, 1881—Tamaulipas and Oaxaca.

<sup>1</sup> *Nannorchilus leucogaster grisescens* Griscom: Very close to *N. l. leucogaster*, but upper parts more grayish brown, with but a slight isabella tinge on rump and tail coverts; superciliaries and lower surface less purely white; flanks slightly less buffy.

I have strong suspicions that this form rests on seasonal rather than racial characters. Both the type and the specimen in Field Museum taken in the latter half of April are in rather worn condition. When compared to newly molted fall birds from Tamaulipas and Vera Cruz, the distinctions given above are obvious enough, but they may easily be accounted for by the different stages of the plumages.

*Hemiura leucogastra* Richmond, Proc. U. S. Nat. Mus., 18, p. 632, 1896—Alta Mira, Tamaulipas.

*Nannorchilus leucogaster leucogaster* Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 618, 1904—southeastern Mexico, in states of Vera Cruz, Puebla, Oaxaca, and Tamaulipas (monog.); Phillips, Auk, 28, p. 82, 1911—Alta Mira, Tamaulipas.

(?) *Cyphorinus pusillus* Sclater, Proc. Zool. Soc. Lond., 27, p. 372, 1859—Playa Vicente, "Oaxaca" (type now in British Museum); idem, Cat. Coll. Amer. Bds., p. 20, 1862—Oaxaca.

*Heterorhina pusilla* Baird, Rev. Amer. Bds., 1, p. 119, 1864—Oaxaca (crit.); Lantz, Trans. Kans. Acad. Sci., 16, p. 224, 1899—Rinconada, Vera Cruz.

**Range.**—Southeastern Mexico, in states of Tamaulipas (Alta Mira), Vera Cruz, Puebla (Metlaltoyuca), and northern Oaxaca. 1: Mexico (Pueblo Viejo, Vera Cruz, 1).

***Nannorchilus leucogaster musicus* (Nelson).<sup>1</sup> PALENQUE WREN.**

*Hemiura leucogastra musica* Nelson, Proc. Biol. Soc. Wash., 16, p. 159, 1903—Teapa, Tabasco (type in U. S. National Museum).

*Nannorchilus leucogaster musicus* Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 620, 1904—southern Mexico (Tabasco and Chiapas) and Guatemala (monog.); (?) Austin, Bull. Mus. Comp. Zool., 69, p. 385, 1929—Mountain Cow, Cayo district, British Honduras (crit.).

**Range.**—Extreme southeastern Mexico, in states of Tabasco (Teapa) and northern Chiapas (Palenque); (?) Guatemala; (?) British Honduras (Cayo district).

**\**Nannorchilus leucogaster brachyurus* (Lawrence). TEMAX WREN.**

*Troglodytes brachyurus* Lawrence, Ann. N. Y. Acad. Sci., 4, p. 67, 1887—Temax, Yucatan (type now in the American Museum of Natural History, New York); Stone, Proc. Acad. Nat. Sci. Phila., 1890, p. 211—Tekanto, Yucatan.

*Hemiura brachyura* Chapman, Bull. Amer. Mus. N. H., 8, p. 277, 1896—Chichen Itza, Yucatan (nest, song).

<sup>1</sup> This form should probably be called *N. l. pusillus*. Sclater based his supposed new species on four specimens obtained by A. Boucard at Playa Vicente, in southern Vera Cruz on the confines of Oaxaca, one of which, belonging to the Vienna Museum, is before me. This bird differs from the Pueblo Viejo (Vera Cruz) example and others taken in southern Tamaulipas (Alta Mira) by very much darker, deep russet brown (instead of isabella color or broccoli brown) upper parts and much deeper (wood brown) flanks, thus corresponding to the characters of *N. l. musicus*. It is somewhat significant that Griscom (Amer. Mus. Nov., 293, p. 5, 1928) speaks of the latter form as being the one found in "extreme southeastern Vera Cruz," unfortunately without specifying the localities. In the absence of topotypical material of *musicus* I am unable to settle this nomenclatorial problem. Judging from Austin's remarks, birds from British Honduras appear to be intermediate to the Yucatan race.

*Nannorchilus leucogaster brachyurus* Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 620, 1904—Yucatan and Campeche (monog.); Cole, Bull. Mus. Comp. Zool., 50, p. 135, 1906—Chichen Itza, Yucatan; Peters, Auk, 30, p. 377, 1913—Xcopen and thirty miles north of Camp Mengel, Quintana Roo; Griscom, Amer. Mus. Nov., 235, p. 15, 1926—eastern Quintana Roo.

**Range.**—Yucatan Peninsula, in states of Yucatan, Campeche, and Quintana Roo.

1: Yucatan (San Felipe, 1).

### Genus *SALPINCTES* Cabanis

*Salpinctes* Cabanis, Arch. Naturg., 13, (1), p. 323, 1847—type, by subseq. desig. (Gray, Cat. Gen. Subgen. Bds., p. 31, 1855), *Troglodytes obsoleta* Say.

#### \**Salpinctes obsoletus obsoletus* (Say). COMMON ROCK WREN.

*Troglodytes obsoleta* Say, in Long, Exped. Rocky Mts., 2, p. 4, 1823—northern part of Douglas County, Colorado, near junction of Plum Creek with South Platte River (type lost, formerly in Peale's Museum).

*Troglodytes obsoletus* Audubon, Orn. Biog., 4, p. 443, pl. 360, 1838—Colorado (habits).

*Salpinctes obsoletus pulverius* Grinnell, Auk, 15, p. 238, 1898—San Nicolas Island, California (type in collection of J. Grinnell, now in U. S. National Museum); Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 649, 1904—San Nicolas Island (monog.); Swarth, Condor, 16, p. 212, 1914—San Nicolas Island (crit.); Grinnell, Condor, 29, p. 165, 1927—San Nicolas Island (crit.).

*Salpinctes guadeloupensis proximus* Swarth, Condor, 16, p. 215, 1914—San Martín Island, Lower California (type in collection of G. Willett, now in Museum of Vertebrate Zoology, Berkeley); Grinnell, Condor, 30, p. 155, 1928—San Martín Island (crit.).

*Salpinctes obsoletus proximus* McLellan, Proc. Calif. Acad. Sci., (4), 15, p. 314, 1926—San Martín Island.

*Salpinctes obsoletus* Sharpe, Cat. Bds. Brit. Mus., 6, p. 266, 1881—part, excl. Puebla.

*Salpinctes obsoletus obsoletus* Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 645, 1904—western United States and parts of British Columbia and Mexico (monog., full bibliog.); Townsend, Bull. Amer. Mus. N. H., 48, p. 24, 1923—San Benito Islands, and Magdalena Bay, Lower California; Grinnell, Univ. Calif. Pub. Zool., 32, p. 213, 1928—Lower California; van Rossem, Trans. San Diego Soc. N. H., 6, p. 274, 1931—Sonora.

**Range.**—Southern British Columbia, western Alberta, and western Saskatchewan south to Sonora, San Luis Potosi, and Zacatecas, and from the Pacific, including the islands of Farallon, Santa Barbara, and Los Coronados, peninsula of Lower California and adjacent islands, east to western North Dakota, central Nebraska (casually

Minnesota and western Iowa), and central Texas. Winters in southern part of its United States range and in Mexico.<sup>1</sup>

34: British Columbia (Okanagan, 1); Colorado (Hot Sulphur Springs, 2; Colorado Springs, 1; Fort Lyon, 5; Troublesome, 1; Denver, 1; Morrison, 2); Nevada (Carson City, 1); Arizona (Calabasas, 4; Huachuca Mountains, 1; Fort Verde, 1); New Mexico (Members, 3); California (Berkeley, 1; San Clemente Island, 6); Texas (Austin, 2); Sonora (Cerro Blanco, 2).

**\*Salpinctes obsoletus guadeloupensis** Ridgway. GUADALUPE ROCK WREN.

*Salpinctes obsoletus guadeloupensis* Ridgway, Bull. U. S. Geol. and Geog. Surv. Terr., 2, No. 2, p. 185, 1876—Guadalupe Island, Lower California (type in U. S. National Museum); idem, Bull. U. S. Nat. Mus., 50, Part 3, p. 650, 1904—Guadalupe Island (monog.); Thayer and Bangs, Condor, 10, p. 105, 1908—Guadalupe (habits, nest); Oberholser, Auk, 36, p. 407, 1919—Guadalupe (crit.); Townsend, Bull. Amer. Mus. N. H., 48, p. 24, 1923—Guadalupe; McLellan, Proc. Calif. Acad. Sci., (4), 15, p. 314, 1926—Guadalupe; Grinnell, Univ. Calif. Pub. Zool., 32, p. 215, 1928—Guadalupe Island (crit., full bibliog.).

*Salpinctes guadeloupensis* Sharpe, Cat. Bds. Brit. Mus., 6, p. 268, 1881—Guadalupe Island; Miller, Auk, 36, p. 295, 1919 (crit.).

*Range*.—Guadalupe Island, off Lower California.

2: Guadalupe Island.

**Salpinctes obsoletus exsul** Ridgway. SAN BENEDICTO ROCK WREN.

*Salpinctes obsoletus exsul* Ridgway, Proc. Biol. Soc. Wash., 16, p. 169, 1903—San Benedicto Island, Mexico (type in U. S. National Museum); idem, Bull. U. S. Nat. Mus., 50, Part 3, p. 650, 1904—San Benedicto Island (monog.); McLellan, Proc. Calif. Acad. Sci., (4), 15, p. 315, 1926—San Benedicto (local distribution, molt).

*Range*.—San Benedicto Island, Revillagigedo group, off north-western Mexico.

**\*Salpinctes obsoletus notius** Ridgway.<sup>2</sup> MEXICAN ROCK WREN.

*Salpinctes obsoletus notius* Ridgway, Proc. Biol. Soc. Wash., 16, p. 163, 1903—Tlalpam, Federal district, Mexico (type in U. S. National Museum); idem, Bull. U. S. Nat. Mus., 50, Part 3, p. 648, 1904—southern portion of

<sup>1</sup> According to Grinnell's recent investigations, neither *S. o. pulverius*, of San Nicolas Island, nor *S. g. proximus*, of San Martin Island, are properly separable from the Common Rock Wren.

<sup>2</sup> Griscom (Bull. Amer. Mus. N. H., 64, p. 297, 1932) claims that this form is not separable from *S. o. obsoletus*, but admits the desirability of further comparisons.



Mexican plateau (monog., full bibliog.); Miller, Bull. Amer. Mus. N. H., 22, p. 181, 1906—Rancho Baillon, Rio Sestin, Guanacevi, and La Cienaga, Durango; Bangs and Peters, Bull. Mus. Comp. Zool., 68, p. 399, 1928—Cacoprieto, Oaxaca.

*Salpinctes obsoletus* (not *Troglodytes obsoleta* Say) Sclater, Proc. Zool. Soc. Lond., 27, p. 371, 1859—Oaxaca; Lawrence, Bull. U. S. Nat. Mus., 4, p. 13, 1876—Cacoprieto, Tehuantepec; Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 71, 1880—part, Guanajuato, Oaxaca, and Cacoprieto, Mexico; Sharpe, Cat. Bds. Brit. Mus., 6, p. 266, 1881—part, Puebla, Mexico.

**Range.**—Southern portion of Mexican plateau, in states of Mexico, Hidalgo, Puebla, Oaxaca, Guerrero, Jalisco, Guanajuato, Durango, southern Sonora (Alamos), and Federal district.

2: Jalisco (Tuxpan, 2).

### ***Salpinctes obsoletus neglectus* Nelson.<sup>1</sup> CHANCOL ROCK WREN.**

*Salpinctes obsoletus neglectus* Nelson, Auk, 14, p. 70, 1897—Hacienda Chancol, western Guatemala (type in U. S. National Museum); Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 651, 1904—western Guatemala and adjoining parts of Chiapas (monog., bibliog.); Griscom, Bull. Amer. Mus. N. H., 64, p. 297, 1932—western Guatemala (crit.).

*Salpinctes maculatus* Ridgway, Proc. Biol. Soc. Wash., 16, p. 169, 1903—"Tojabaj" [=Jojabaj], Dept. Quiché, Guatemala (type in U. S. National Museum); idem, Bull. U. S. Nat. Mus., 50, Part 3, p. 651, 1904—Jojabaj (monog.).

*Salpinctes obsoletus* (not *Troglodytes obsoleta* Say) Sclater and Salvin, Ibis, 1860, p. 30—Vera Paz; Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 71, 1880—part, Quetzaltenango, Salamá, Rabinal, Quiché, and Jutiapa, Guatemala.

*Salpinctes guttatus guttatus* (not of Salvin and Godman) Dickey and van Rossem, Proc. Biol. Soc. Wash., 40, p. 27, 1927—part, Jojabaj, Guatemala.

**Range.**—Arid Subtropical and Temperate zones of western Guatemala and adjoining parts of Chiapas (Juquipilas).

### ***Salpinctes obsoletus guttatus* Salvin and Godman.<sup>2</sup> SALVADOR ROCK WREN.**

<sup>1</sup> *Salpinctes obsoletus neglectus* Nelson: Similar to *S. o. obsoletus*, but upper parts darker, more grayish brown, and conspicuously streaked, sometimes heavily blotched with dusky, and speckled with white; under parts always more or less spotted.

According to Griscom, this form, though decidedly intermediate between *S. o. obsoletus* (including *notius*) and *S. o. guttatus*, shows enough average characters to be recognized. *S. maculatus* proves to have been based on the darkest variation of the race.

<sup>2</sup> *Salpinctes obsoletus guttatus* Salvin and Godman: Differs from *S. o. neglectus* by much more heavily blotched upper, and more strongly spotted or barred under parts.

*Salpinctes guttatus* Salvin and Godman, Ibis, (6), 3, p. 609, 1891—Volcan de San Miguel, El Salvador (type now in British Museum); Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 653, 1904—part, El Salvador (Volcan de San Miguel and Volcan de Conchagua).

*Salpinctes guttatus guttatus* Dickey and van Rossem, Proc. Biol. Soc. Wash., 40, pp. 25, 27, 1927—part, Volcan San Miguel, Colinas de Jucuaran, and Volcan de Conchagua, El Salvador (crit.).

*Salpinctes obsoletus* (not *Troglodytes obsoleta* Say) Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 71, 1880—part, Volcan de Conchagua, Salvador.

*Range*.—Volcanoes of El Salvador (San Miguel; Conchagua; Colinas de Jucuaran).

**\**Salpinctes obsoletus fasciatus* Salvin and Godman.<sup>1</sup> NICARAGUAN ROCK WREN.**

*Salpinctes fasciatus* Salvin and Godman, Ibis, (6), 3, p. 610, 1891—Volcan El Viejo, Dept. Chinandega, Nicaragua (type now in British Museum); Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 653, 1904—Volcan El Viejo, Nicaragua.

*Salpinctes guttatus fasciatus* Dickey and van Rossem, Proc. Biol. Soc. Wash., 40, pp. 26, 27, 1927—Nicaragua (El Viejo) and Costa Rica (Miravalles) (crit.).

*Salpinctes guttatus* (not of Salvin and Godman) Underwood, Ibis, 1896, p. 433—Miravalles, Costa Rica; Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 653, 1904—part, Costa Rica (Miravalles); Carriker, Ann. Carnegie Mus., 6, p. 754, 1910—Miravalles, Costa Rica (habits).

*Range*.—Northwestern Nicaragua (Volcan El Viejo) and Costa Rica (Miravalles and El Pelón, Guanacaste; Orosi).

4: Costa Rica (El Pelón, Guanacaste, alt. 700 ft., 1; Orosi, 3).

**Genus CATHERPES Baird<sup>2</sup>**

*Catherpes* Baird, Rep. Pac. R. R. Surv., 9, p. 356, 1858—type, by orig. desig., *Thryothorus mexicanus* Swainson.

**\**Catherpes mexicanus mexicanus* (Swainson).<sup>3</sup> MEXICAN CANYON WREN.**

*Thryothorus mexicanus* Swainson, Zool. Ill., (2), 1, pl. 11, 1829—Real del Monte, Hidalgo (type in collection of D. Taylor).

<sup>1</sup> *Salpinctes obsoletus fasciatus* Salvin and Godman: Very close to *S. o. guttatus*, but in immature plumage paler and less variegated.

<sup>2</sup> Our own material being altogether inadequate, Oberholser's recent review of the races of this genus (Sci. Pub. Cleveland Mus. N. H., 1, pp. 94, 96, 1930) has been largely used in this account.

<sup>3</sup> *Troglodytes murarius* Lichtenstein (Preis-Verz. Mexik. Th., p. 2, 1830; Journ. Orn., 11, p. 57, 1863), described as: "Obertheil braun geperlt, Schwanz hellblau mit schwarzen Binden, Kehle und Brust weiss, Bauch hellbraun und schwarz geperlt," seems to have been based on an artifact, composed of the body of *Catherpes* and the tail (pale blue with black bands) of some other bird.

*Thryothorus guttulatus* Lafresnaye, Rev. Zool., 2, p. 99, 1839—Mexico (type in collection Brelay, Bordeaux).

*Catherpes mexicanus* Baird, Rev. Amer. Bds., 1, p. 111, 1864—part, Vera Cruz (Mirador) and Colima (Rio Coahuayana); Sumichrast, Mem. Bost. Soc. N. H., 1, p. 545, 1869—temperate region of Vera Cruz; Lawrence, l.c., 2, p. 268, 1874—Tepic and Guadalajara; Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 72, 1880—Mexican localities and references; Sharpe, Cat. Bds. Brit. Mus., 6, p. 280, 1881—Mexico.

*Catherpes mexicanus mexicanus* Oberholser, Auk, 20, p. 196, 1903—tableland of Mexico, excepting northern portion; Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 655, 1904—central and southern portion of Mexican plateau (monog., full bibliog.); Oberholser, Sci. Pub. Cleveland Mus. N. H., 1, p. 95, 1930—Mexican tableland from Oaxaca and Colima north to Durango and Jalisco (crit.).

*Catherpes mexicanus albifrons* (not *Certhia albifrons* Giraud) Miller, Bull. Amer. Mus. N. H., 22, p. 181, 1906—Cienaga de las Vacas, Durango.

*Range*.—Central and southern parts of Mexican plateau, from Oaxaca and Colima north to Durango and Jalisco.

4: Jalisco (Tuxpan, 2; Bolaños, 2).

### ***Catherpes mexicanus albifrons* (Giraud). GIRAUD'S CANYON WREN.**

*Certhia albifrons* Giraud, Sixteen Spec. Texan Birds, p. [17], pl. [8], 1841—"Texas" (type now in U. S. National Museum).

*Catherpes mexicanus albifrons* Nelson, Auk, 15, p. 160, 1898—lower Rio Grande, Texas, and states of Nuevo Leon and "Tamaulipas," Mexico (crit.); Oberholser, Auk, 20, p. 196, 1903—Nuevo Leon, Coahuila, and probably Tamaulipas, north to Texas (crit.); Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 657, 1904—northeastern Mexico and southwestern Texas (monog., full bibliog.); Oberholser, Sci. Pub. Cleveland Mus. N. H., 1, p. 95, 1930—northeastern Mexico and Texas (mouth of Pecos River).

*Range*.—Northeastern Mexico, from Aguas Calientes north to Coahuila and Nuevo Leon, and southwestern Texas (near mouth of Pecos River).

### **\**Catherpes mexicanus meliphonus* Oberholser.<sup>1</sup> SONORA CANYON WREN.**

*Catherpes mexicanus meliphonus* Oberholser, Sci. Pub. Cleveland Mus. N. H., 1, p. 95, Dec., 1930—Alamos, Sonora (type in U. S. National Museum).

<sup>1</sup> *Catherpes mexicanus meliphonus* Oberholser, according to its describer, is similar to *C. m. mexicanus*, but somewhat lighter and decidedly smaller, though much darker, more brownish above than *C. m. polioptilus*.

This recently proposed race is regarded by certain authors as an intergrade between *C. m. mexicanus* and *C. m. conspersus*. Its characters are hardly discernible in the admittedly scanty material available for comparison.

*Catherpes mexicanus polioptilus* (not of Oberholser) Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 660, 1904—part, Sonora and Chihuahua, northwestern Mexico.

*Catherpes mexicanus mexicanus* (not *Thryothorus mexicanus* Swainson) van Rossem, Trans. San Diego Soc. N. H., 6, p. 273, 1931—Chinobampo, Sonora (crit.).

*Catherpes mexicanus conspersus* (not of Ridgway) van Rossem, l.c., p. 274, 1931—San Javier, Sonora (crit.).

**Range.**—Northwestern Mexico, in states of Sonora and Chihuahua.

6: Chihuahua (thirty miles west of Miñaca, 6).

**\*Catherpes mexicanus polioptilus Oberholser.<sup>1</sup> INTERMEDIATE CANYON WREN.**

*Catherpes mexicanus polioptilus* Oberholser, Auk, 20, p. 197, 1903—Deer Mountain, Chisos Mountains, Texas (type in U. S. National Museum); Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 660, 1904—part, Texas, New Mexico, and parts of Arizona and Colorado; Oberholser, Sci. Pub. Cleveland Mus. N. H., 1, p. 95, 1930 (range, crit.).

**Range.**—Central and western Texas (excepting the region about the mouth of the Pecos River), New Mexico, southeastern Colorado, and the southeastern corner of Arizona (Graham Mountains) (teste Oberholser).

3: Texas (Ingram, 2; Davis Mountains, 1).

**\*Catherpes mexicanus conspersus Ridgway. NEVADA CANYON WREN.**

*Catherpes mexicanus* var. *conspersus* Ridgway, Amer. Natur., 7, p. 603, 1873—Fort Churchill, Nevada (type in U. S. National Museum).

*Catherpes conspersus* Sharpe, Cat. Bds. Brit. Mus., 6, p. 282, 1881—Black River, Arizona.

*Catherpes mexicanus conspersus* Oberholser, Auk, 20, p. 198, 1903 (range, crit.); Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 658, 1904—western United States (monog., full bibliog.); Grinnell, Univ. Calif. Pub. Zool., 32, p. 216, 1928—Las Palmas Canyon, west side of Laguna Salada, northeastern Lower California; Oberholser, Sci. Pub. Cleveland Mus. N. H., 1, p. 96, 1930—Arizona to Colorado, Utah, Nevada, and southeastern California (crit.).

**Range.**—From southern British Columbia, Idaho, and northern Colorado south to northeastern Lower California (Las Palmas Canyon) and Arizona.

<sup>1</sup> This race is not admitted in the new edition of the A. O. U. Check List, and, as it consists of variable intergrades, its recognition in nomenclature is open to serious question.

8: Colorado (Boulder, 1); Arizona (Chiricahua Mountains, 2; Santa Catalina Mountains, 1; Huachuca Mountains, 4).

**\*Catherpes mexicanus punctulatus** Ridgway. DOTTED CANYON WREN.

*Catherpes mexicanus punctulatus* Ridgway, Proc. U. S. Nat. Mus., 5, p. 343, 1882—Forest Hill, Placer County, California (type in U. S. National Museum); Oberholser, Auk, 20, p. 197, 1903—California, Oregon, and Washington (crit.); Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 659, 1904—California (monog., full bibliog.); Grinnell, Univ. Calif. Pub. Zool., 32, p. 215, 1928—Lower California; Oberholser, Sci. Pub. Cleveland Mus. N. H., 1, p. 96, 1930 (range, crit.).

*Range*.—California west of the deserts, Lower California, Oregon, and southeastern Washington.

7: California (Riverside, 1; Northern Falls, near Coldbrook Camp, 1); Lower California (El Sauz, 3; Espiritu Santo Island, 1; Sierra Laguna, 1).

Genus **HYLORCHILUS** Nelson

*Hylorchilus* Nelson, Auk, 14, p. 71, 1897—type, by orig. desig., *Catherpes sumichrasti* Lawrence.

**Hylorchilus sumichrasti** (Lawrence). SUMICHRAST'S WREN.

*Catherpes sumichrasti* Lawrence, Proc. Acad. Nat. Sci. Phila., 1871, p. 233—Mato Bejuco, Vera Cruz (type in U. S. National Museum); Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 74, 1880—Mato Bejuco; Sharpe, Cat. Bds. Brit. Mus., 6, p. 282, 1881—Mato Bejuco.

*Hylorchilus sumichrasti* Nelson, Auk, 14, p. 72, 1897—Motzorongo, Vera Cruz (crit., habits); Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 664, 1904—in State of Vera Cruz (monog.); Bangs and Peters, Bull. Mus. Comp. Zool., 67, p. 481, 1927—Presidio, Vera Cruz (nest and eggs).

*Range*.—Eastern Mexico, in State of Vera Cruz (Mato Bejuco, Motzorongo, Presidio).

Genus **MICROCERCULUS** Sclater

*Microcerculus* Sclater, Cat. Coll. Amer. Bds., p. 19, 1862—type, by subs. desig. (Baird, Rev. Amer. Bds., 1, p. 113, 1864), *Turdus bambla* Boddaert.

**\*Microcerculus bambla bambla** (Boddaert). WHITE-BANDED WREN.

*Formicarius bambla* Boddaert, Tabl. Pl. Enl., p. 44, 1783—based on "Le Bambla" Buffon and "Le Banbla, de Cayenne" Daubenton, Pl. Enl., pl. 703, fig. 2; Cayenne.

*Myrmothera troglodytes* Lesson, Echo du Monde Sav., 11, 2nd sem., No. 10, p. 235, Aug., 1844—Cayenne; idem, Oeuvr. Buffon, éd. Lévêque, 20

(Descr. Mamm. Ois.), p. 301, 1847—Cayenne (type in coll. Abeillé, Bordeaux).

*Heterocnemis bambla* Sclater, Proc. Zool. Soc. Lond., 23, p. 146, 1855—Cayenne.

*Cyphorinus bambla* Sclater, Cat. Coll. Amer. Bds., p. 19, 1862—Cayenne.

*Microcerculus bambla* Sharpe, Cat. Bds. Brit. Mus., 6, p. 296, 1881—Bartica Grove, British Guiana; Salvin, Ibis, 1885, p. 200—Bartica Grove, Camacusa, and Merumé Mountains, British Guiana; Berlepsch, Nov. Zool., 15, p. 106, 1908—Cayenne; Penard, Vog. Guyana, 2, p. 531, 1910—Dutch Guiana; Beebe, Trop. Wild Life, 1, p. 135, 1917—Bartica Grove; Chubb, Bds. Brit. Guiana, 2, p. 369, 1921—British Guiana.

*Range*.—French, Dutch, and British Guiana.<sup>1</sup>

2: British Guiana (Mazaruni River, 2).

***Microcerculus bambla caurensis* Berlepsch and Hartert.<sup>2</sup> VENEZUELAN BANDED WREN.**

*Microcerculus caurensis* Berlepsch and Hartert, Nov. Zool., 9, p. 5, 1902—Nicare, Caura River, Venezuela (type in Tring Museum examined); Cherrie, Sci. Bull., Mus. Brookl. Inst., 2, p. 147, 1916—Nicare, Caura.

*Range*.—Eastern Venezuela (Nicare, Caura Valley).

***Microcerculus bambla albigularis* (Sclater). WESTERN BANDED WREN.**

*Heterocnemis albigularis* Sclater, Proc. Zool. Soc. Lond., 26, p. 67, 1858—Rio Napo, Ecuador (type in British Museum examined).

*Cyphorinus albigularis* Sclater, Cat. Coll. Amer. Bds., p. 19, 1862—Rio Napo.

*Microcerculus albigularis* Sharpe, Cat. Bds. Brit. Mus., 6, p. 296, 1881—Sarayacu, Ecuador; (?) Snethlage, Bol. Mus. Nac. Rio de Janeiro, 2, No. 6, p. 50, 1926—Manacapurú, Rio Solimões, Brazil.<sup>3</sup>

*Microcerculus bambla albigularis* Chapman, Bull. Amer. Mus. N. H., 55, p. 574, 1926—Rio Suno, below San José de Sumaco, and Sarayacu, Ecuador.

*Range*.—Eastern Ecuador (Rio Napo, Sarayacu, Rio Suno, San José de Sumaco).<sup>4</sup>

<sup>1</sup> *Material examined*.—French Guiana: Cayenne, 2.—British Guiana (various localities), 25.

<sup>2</sup> *Microcerculus bambla caurensis* Berlepsch and Hartert: Differs from both *M. b. bambla* and *M. b. albigularis* by considerably brighter rufous brown upper parts, and by lacking the dusky markings on back, breast, and sides of the body. The color of the throat is intermediate, somewhat more whitish gray than in *bambla*, but not so purely white as in *albigularis*. The other points of distinction claimed by the describers do not hold good. Wing (adult female), 60; bill, 17.

*Material examined*.—Venezuela: Nicare, Caura Valley, 1 (the type).

<sup>3</sup> Identification of the specimen is admittedly uncertain. It may prove to be referable to *M. b. caurensis*.

<sup>4</sup> *Material examined*.—Eastern Ecuador: Rio Napo, 1 (the type); Sarayacu, 3.

**\**Microcerculus marginatus marginatus* (Sclater). SCALY-BREASTED WREN.**

*Heterocnemis marginata* Sclater, Proc. Zool. Soc. Lond., 23, p. 145, Dec., 1855—"Bogotá" collections (type, now in British Museum, examined;=immature).

*Heterocnemis bicolor* Des Murs, in Castelnau, Expéd. Amér. Sud, Zool., 7, Ois., livr. 18, p. 51, pl. 16, fig. 3, June, 1856—no locality stated (the type examined in Paris Museum is from the upper Amazon;=adult).

*Cyphorhinus marginatus* Sclater, Cat. Coll. Amer. Bds., p. 19, 1862—eastern Peru and Bogotá.

*Cyphorhinus marginatus* Pelzeln, Orn. Bras., 1, p. 47, 1868—Marabitanas, Rio Negro (spec. examined).

*Microcerculus marginatus* Sclater and Salvin, Proc. Zool. Soc. Lond., 1867, p. 977—Pebas, Peru; idem, l.c., 1873, p. 257—Chamicuros and Pebas, Peru; Taczanowski, l.c., 1874, p. 506—Amable Maria, Peru; idem, l.c., 1882, p. 6—Yurimaguas, Peru; idem, Orn. Pér., 1, p. 510, 1884—Chamicuros, Pebas, and Yurimaguas, Peru; Sharpe, Cat. Bds. Brit. Mus., 6, p. 299, 1881—Chamicuros and Pebas, Peru; Ihering, Cat. Faun. Braz., 1, p. 324, 1907 (range).

*Microcerculus marginatus marginatus* Hellmayr, Nov. Zool., 13, pp. 354, 355, 1906—Santo Antonio do Prata, Pará (crit., range); idem, Abhandl. Bayr. Akad. Wiss., Math.-Phys. Kl., 26, No. 2, pp. 5, 86, 1912—Peixe-Boi, Pará, and Pará localities; Chapman, Bull. Amer. Mus. N. H., 36, p. 528, 1917—Florencia and La Morelia, southeastern Colombia; idem, l.c., 55, p. 575, 1926—Rio Suno, Ecuador.

*Microcerculus bicolor* Taczanowski, Orn. Pér., 1, p. 510, 1884—Amable Maria, Peru; Allen, Bull. Amer. Mus. N. H., 2, p. 79, 1889—"Yungas," Bolivia; Salvadori and Festa, Boll. Mus. Zool. Torino, 14, No. 357, p. 6, 1899—Rio Santiago, Ecuador; Snethlage, Journ. Orn., 56, p. 9, 1908—Cachoeira, Rio Purús, and Pará; idem, Bol. Mus. Goeldi, 8, p. 487, 1914—Pará, Providencia, Ananindeua, Benevides, Santa Isabel, Santo Antonio do Prata, Rio Guamá (Ourém), and Rio Purús (Cachoeira); Berlioz, Bull. Mus. Hist. Nat. Paris, 34, p. 72, 1928—Rio Suno, Ecuador.

**Range.**—Upper Amazonia, from the eastern foot of the east Colombian Andes south through eastern Ecuador and Peru to northern Bolivia, and east through northern Brazil as far as Pará, east of the Rio Negro only south of the Amazon.<sup>1</sup>

2: Peru (Rio Perené, Dept. Junín, 1; Rioja, 1).

<sup>1</sup> The few available skins from Pará do not appear to differ from an upper Amazonian series. Variation and plumages of this wren are discussed at length by Hellmayr, Nov. Zool., 13, pp. 354–355, 1906.

**Material examined.**—Colombia: "Bogotá," 13.—Ecuador: Rio Santiago, 1.—Peru: Pebas, 1; Chamicuros, 1; Rioja, 1; Rio Perené, 1; Marcapata, 1.—Brazil: Cachoeira, Rio Purús, 1; Marabitanas, Rio Negro, 4; Santo Antonio do Prata, Pará, 1; Peixe-Boi, Pará, 1; Ourém, Rio Guamá, 1.

**Microcerculus marginatus occidentalis** Hellmayr.<sup>1</sup> WESTERN SCALY-BREADED WREN.

*Microcerculus marginatus occidentalis* Hellmayr, Nov. Zool., 13, pp. 354, 355, 1906—Lita, Prov. Imbabura, northwestern Ecuador (type in Tring Museum); Chapman, Bull. Amer. Mus. N. H., 36, p. 528, 1917—Nóvita, San José, and Barbacoas, Pacific Colombia; idem, l.c., 55, p. 575, 1926—Naranjo, Ecuador.

*Microcerculus bicolor* (not *Heterocnemis bicolor* Des Murs) Sharpe, Cat. Bds. Brit. Mus., 6, p. 298, 1881—"Sarayacu, eastern Ecuador," errore (cf. Hellmayr, Nov. Zool., 13, p. 354, 1906).

*Microcerculus bicolor marginatus* (not *Heterocnemis marginata* Sclater) Hartert, Nov. Zool., 5, p. 479, 1898—Cachaví, Ecuador (spec. examined).

*Range*.—Tropical zone of western Colombia and western Ecuador.

**\*Microcerculus philomela philomela** (Salvin). NIGHTINGALE WREN.

*Cyphorhinus philomela* Salvin, Proc. Zool. Soc. Lond., 1861, p. 202—Vera Paz, Guatemala (type now in British Museum;=immature); idem, Ibis, 1861, p. 352—Choctum, Guatemala; Sclater, Cat. Coll. Amer. Bds., p. 358, 1862—Chisec, Guatemala; Lawrence, Ann. Lyc. Nat. Hist. N. Y., 7, p. 467, 1862—Lion Hill, Panama Railroad.

*Microcerculus philomela* Baird, Rev. Amer. Bds., 1, p. 114, 1864—Vera Paz, Guatemala, and Panama (crit.); Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 76, pl. 5, fig. 3, 1880—Guatemala (Choctum, above Lanquin, between Cahabón and San Luis); Sharpe, Cat. Bds. Brit. Mus., 6, p. 297, 1881—Guatemala; Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 667, 1904—Guatemala (monog.).

*Microcerculus lusciniæ* Salvin, Proc. Zool. Soc. Lond., 1866, p. 69—Veragua and Panama (type from Santa Fé, Veragua, now in British Museum;=adult); idem, l.c., 1867, p. 134—Santa Fé and Santiago, Veragua; Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 77, pl. 5, fig. 4, 1880—Veragua (Santa Fé and Santiago) and Panama (Lion Hill); Sharpe, Cat. Bds. Brit. Mus., 6, p. 298, 1881—Veragua and Panama; Zeledón, Anal.

<sup>1</sup> *Microcerculus marginatus occidentalis* Hellmayr: Similar to *M. m. marginatus*, but with longer, slenderer bill; upper parts much darker and less rufescent; sides of the body much darker, deep chocolate brown; the whole middle of the abdomen crossed by broad blackish submarginal markings. Wing, 57–60; tail, 21–24; bill, 17½–19.

*Material examined*.—Ecuador: Lita, Prov. Imbabura, 6; Cachaquacu, Prov. Imbabura, 1; Prov. Esmeraldas, Cachaví, 1; Pambilár, 2, Ventana, 1.—"Sarayacu" (errore), 3.

Since this account was written, Griscom (Bull. Mus. Comp. Zool., 72, pp. 360–364, 1932), in a very thorough study of the Nightingale Wrens, came to the conclusion that *M. m. marginatus* merely represents the fully adult plumage of *M. p. taeniatus*. The author affords good evidence in support of this theory, and his statements, based on long series of most of the described forms, deserve due consideration. According to his view, the *M. philomela* group is conspecific with *M. marginatus*. Sclater's term, consequently, becomes the specific name for the whole series, and *M. m. occidentalis* must be added to the synonymy of *M. m. taeniatus*.



Mus. Nac. Costa Rica, 1, p. 105, 1887—Pacuaré, Costa Rica; Ridgway, Proc. U. S. Nat. Mus., 16, p. 609, 1893—"Burica" [=Boruca], Costa Rica (crit.); Cherrie, Anal. Inst. Fis.-Geog. Mus. Nac. C. R., 4, p. 134, 1893—Boruca, Costa Rica; Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 669, 1904—Panama to southwestern Costa Rica (monog.); Carriker, Ann. Carnegie Mus., 6, p. 753, 1910—El General de Térraba, La Vijagua, Cerro de Santa María, Tenorio, and Ujurrás de Térraba, Costa Rica (range).

*Microcerculus daulias* Ridgway, Proc. U. S. Nat. Mus., 10, p. 508, Aug., 1888—Talamanca, Costa Rica (type in U. S. National Museum;=immature); idem, Bull. U. S. Nat. Mus., 50, Part 3, p. 668, 1904—eastern Costa Rica (Talamanca, Pacuaré).

*Microcerculus orpheus* Ridgway, Proc. U. S. Nat. Mus., 11, p. 539, Sept., 1889—Pacuaré, Costa Rica (type in U. S. National Museum;=adult).

*Microcerculus acentetus* Bangs, Proc. New Engl. Zool. Cl., 3, p. 56, 1902—Boquete, south slope of Volcan de Chiriquí (type now in Museum of Comparative Zoology, Cambridge, Mass.; cf. Bangs, Bull. Mus. Comp. Zool., 70, p. 321, 1930).

*Microcerculus philomela lusciniæ* Bangs and Barbour, Bull. Mus. Comp. Zool., 65, p. 222, 1922—Mount Sapo, Darien (crit.).

*Microcerculus* Bangs, Proc. Biol. Soc. Wash., 22, pp. 34–35, 1909—Costa Rica and Chiriquí (crit.).

*Cyphorinus bambla* (?) (not *Formicarius bambla* Boddaert) Lawrence, Ann. Lyc. Nat. Hist. N. Y., 7, p. 320, 1861—Lion Hill, Panama.

**Range.**—Tropical and Lower Subtropical zones of Guatemala, Costa Rica, and Panama, east to Darien.<sup>1</sup>

1: Costa Rica (Puerto Jiménez, Oso Peninsula, 1).

### ***Microcerculus philomela squamulatus* Sclater and Salvin.<sup>2</sup>** **SQUAMULATED WREN.**

<sup>1</sup>The five "species" of Nightingale Wren described from Central America appear to have been based on differences due to age and individual variation. As pointed out by Bangs (Proc. Biol. Soc. Wash., 22, pp. 34–35, 1909), birds from western Panama (Chiriquí) and various parts of Costa Rica cannot be distinguished from each other, and after going over the same material supplemented by some additional specimens, I fully agree with his conclusions as to the identity of *M. daulias*, *M. lusciniæ*, and *M. acentetus*. A single bird from Vera Paz, Guatemala, being inseparable from several Costa Rican examples, I do not see my way clear of recognizing *philomela*, originally founded on the immature stage with dusky edges to the dorsal feathers, etc. Salvin's name consequently becomes the proper term for the Central American Nightingale Wren. Of two adults from Darien, eastern Panama, one can be closely matched by others from Costa Rica, while the second individual, by having faint dusky bars underneath, forms the passage to the Santa Marta race, *M. p. corrasus*.

**Material examined.**—Guatemala: Vera Paz, 1.—Costa Rica: Puerto Jiménez, 1; El General, 4; Cerro Santa María, 3; Tenorio, 2; La Vijagua, 2.—Panama: Boquete, Volcán de Chiriquí, 5; Mount Sapo, Darien, 2.

<sup>2</sup>Study of an extensive series reveals an extraordinary amount of individual variation in the markings of the under parts, twenty specimens from Las Quiguas, in the upper San Esteban Valley, being particularly instructive and showing beyond

*Microcerculus squamulatus* Selater and Salvin, Proc. Zool. Soc. Lond., 1875, p. 37, pl. 6, 1875—San Cristobal, Tachira, Venezuela (type in coll. of P. L. Selater, now in British Museum, examined); idem, l.c., 1875, p. 237—San Cristobal; Sharpe, Cat. Bds. Brit. Mus., 6, p. 300, 1881—San Cristobal.

*Microcerculus pectoralis* Richmond, Proc. U. S. Nat. Mus., 24, p. 178, 1901—La Guaira, below Caracas, Venezuela (type in U. S. National Museum examined).

*Microcerculus squamulatus antioquiensis* Chapman, Bull. Amer. Mus. N. H., 34, p. 647, 1915—Dabeiba, Rio Sucio, Antioquia, Colombia (type in the American Museum of Natural History, New York, examined); idem, l.c., 36, p. 528, 1917—Dabeiba and Alto Bonito, Rio Sucio, Colombia.

*Microcerculus squamulatus squamulatus* Hellmayr and Seilern, Arch. Naturg., 78, A, Heft 5, p. 44, 1912—Paso Hondo (San Esteban), Las Quiguas, and La Cumbre de Valencia, Carabobo, Venezuela (crit.).

*Range*.—Tropical zone of northwestern Venezuela (La Guaira, Dept. Federal; San Esteban Valley, Las Quiguas, and La Cumbre de Valencia, Carabobo; mountains near Bucarito, Tocuyo, Lara; San Cristobal, Tachira) and northwestern Colombia (State of Antioquia).<sup>1</sup>

doubt that only one form exists in western Venezuela. In this series there is every gradation from the *squamulatus* type—with closely barred under parts from the foreneck down to the anal region—to the *pectoralis* variety, in which only a limited pale area on the foreneck and middle of the breast is irregularly and sparingly marked with dusky. Two females are in every detail like the type of *M. pectoralis*, kindly loaned by the authorities of the U. S. National Museum, whereas two adult males in their closely banded ventral surface match the original example of *M. squamulatus*. The rest of the series from Las Quiguas is variously intermediate between these two extremes. When compared to the Venezuelan material in the Carnegie Museum, which, thanks to the courtesy of Mr. W. E. C. Todd, I have been permitted to examine, *M. s. antioquiensis* would seem to be separable by its more heavily barred under parts, as claimed by Dr. Chapman. Its supposed characters disappear, however, when additional specimens from Venezuela are taken into consideration. As a matter of fact, every one of the three Antioquia birds can be precisely matched, as regards amount of barring, by individuals from Las Quiguas in the Munich Museum series. The only divergency of the Colombian form that I am able to discover is the very slightly deeper rufous-brown tone of the upper parts, which seems to be too insignificant to justify its retention, inasmuch as the color of the dorsal surface varies a good deal among Venezuelan birds.

*Material examined*.—Venezuela: La Guaira, Dept. Federal, 1 (type of *M. pectoralis*); Las Quiguas (upper San Esteban Valley), Carabobo, 18; La Cumbre de Valencia, Carabobo, 2; mountains near Bucarito, Tocuyo, Lara, 2; San Cristobal, Tachira, 1 (type of *M. squamulatus*).—Colombia, Antioquia: Dabeiba, Rio Sucio, 1 (type of *M. s. antioquiensis*); Alto Bonito, 1; Jerico, 1.

<sup>1</sup> Chapman (Bull. Amer. Mus. N. H., 55, p. 375, 1926) records *M. luscini* *squamulatus* from Rio Suno, eastern Ecuador. The single specimen is said to resemble *M. p. taeniatus* in pattern of markings underneath, but to be much darker and more rufescent. It probably belongs to an undescribed race, unless it be an individual variant of *M. m. marginatus*.

**Microcerculus philomela corrasus** Bangs.<sup>1</sup> SANTA MARTA  
SQUAMULATED WREN.

*Microcerculus corrasus* Bangs, Proc. New Engl. Zool. Cl., 3, p. 87, 1902—Chirua, Santa Marta, Colombia (type in coll. Bangs, now in Museum of Comparative Zoology, Cambridge, Mass.; cf. Bangs, Bull. Mus. Comp. Zool., 70, p. 321, 1930); Allen, Bull. Amer. Mus. N. H., 21, p. 278, 1905—Chirua (ex Bangs).

*Microcerculus squamulatus corassus* [sic] Chapman, Bull. Amer. Mus. N. H., 34, p. 647, 1915—Don Diego, Santa Marta (crit.).

*Microcerculus squamulatus corrasus* Todd and Carriker, Ann. Carnegie Mus., 14, p. 409, 1922—Don Diego, San Lorenzo, and Loma Larga, Santa Marta region (crit.).

*Microcerculus marginatus* (not *Heterocnemis marginata* Sclater) Allen, Bull. Amer. Mus. N. H., 13, p. 180, 1900—Onaca, Santa Marta.

*Range*.—Tropical zone of the Santa Marta region, northern Colombia.

**Microcerculus philomela taeniatus** Salvin.<sup>2</sup> ILLINGWORTH'S  
WREN.

*Microcerculus taeniatus* Salvin, Ibis, (4), 5, p. 130, pl. 3, fig. 2, 1881—Balzar, Ecuador (type, now in British Museum, examined); Sharpe, Cat. Bds. Brit. Mus., 6, p. 300, 1881—Balzar; Berlepsch and Taczanowski, Proc. Zool. Soc. Lond., 1883, p. 539—Chimbo; Hellmayr, Nov. Zool., 13, p. 355 (in text), 1906—Balzar (crit.).

*Microcerculus squamulatus taeniatus* Hellmayr and Seilern, Arch. Naturg., 78, A, Heft 5, p. 45, 1912—Balzar and Chimbo (crit.); Chapman, Bull. Amer. Mus. N. H., 34, pp. 647, 648 (in text), 1915—Chone, Ecuador (crit.).

<sup>1</sup> *Microcerculus philomela corrasus* Bangs: Very close to *M. p. squamulatus*, but smaller, with shorter, slenderer bill; ground-color of under parts more purely white; dusky barring on foreneck, breast, and middle of abdomen narrower; rufescent brown suffusion on flanks more restricted. Wing, 56; tail, 20; bill, 16½–17.

*Material examined*.—Colombia: Don Diego, 2; Onaca, 1.

Specimens of *M. p. squamulatus* present the following measurements:

	Wing	Tail	Bill
Eight adult males from Las Quiguas, Carabobo.....	59–64	22–24	18–19
Three adult males from Antioquia, Colombia.....	58, 58, 62	20, 21, 22	18, 19, 20
One adult male from San Cristobal, Tachira	60	20	19
One adult female from La Guaira, Venezuela.....	59	22	19
Six adult females from Las Quiguas and Cumbre de Valencia, Venezuela.....	60–63	20–22	18–19

<sup>2</sup> *Microcerculus philomela taeniatus* Salvin: Similar to *M. p. squamulatus* and about the same size; but upper parts and flanks decidedly deeper rufous brown; no grayish tinge on foreneck or chest; blackish barring underneath wider, as well as more sharply defined. Similar also to *M. p. corrasus*, but larger, with stronger bill; dorsal surface conspicuously darker rufous brown; blackish barring below much wider; flanks more extensively and deeper rufescent brown. Wing (three adult males), 58–60; tail, 21–23; bill, 18–19.

*Material examined*.—Western Ecuador: Balzar, 1 (the type); Chimbo, 2.

*Microcerculus lusciniæ taeniatus* Chapman, Bull. Amer. Mus. N. H., 55, p. 575, 1926—Bucay, Chone, and Chimbo, Ecuador (crit.).

*Range*.—Tropical zone of western Ecuador, in provinces of Manaví (Chone) and Guayas (Balzar, Chimbo, Bucay).

***Microcerculus ustulatus ustulatus* Salvin and Godman.<sup>1</sup> RORAIMA NIGHTINGALE WREN.**

*Microcerculus ustulatus* Salvin and Godman, Ibis, (5), 1, p. 204, pl. 9, fig. 2, 1883—Roraima, British Guiana (type, now in British Museum, examined); Salvin, Ibis, 1885, p. 200—Roraima; idem, Ibis, 1886, p. 500—Mount Twék-quay; Chubb, Bds. Brit. Guiana, 2, p. 370, 1921—Roraima; Chapman, Bull. Amer. Mus. N. H., 63, p. 109, 1931—Roraima.

*Range*.—Subtropical zone of the mountains of British Guiana (Mounts Roraima and Twék-quay).

***Microcerculus ustulatus duidæ* Chapman.<sup>2</sup> DUIDA NIGHTINGALE WREN.**

*Microcerculus duidæ* Chapman, Amer. Mus. Nov., 380, p. 23, Oct., 1929—tableland of Mount Duida, Venezuela (type in the American Museum of Natural History, New York, examined); Chapman, Bull. Amer. Mus. N. H., 63, p. 188, 1931—Mount Duida.

*Range*.—Subtropical zone of Mount Duida, southern Venezuela.

**Genus LEUCOLEPIS Reichenbach**

*Cyphorhinus* (not *Cyphorhina* Lesson, 1843) Cabanis, Arch. Naturg., 10, (1), p. 282, 1844—type, by monotypy, *Cyphorhinus thoracicus* Tschudi.

<sup>1</sup> *Microcerculus ustulatus ustulatus* Salvin and Godman: Above nearly uniform chestnut with scarcely a few watermark-like dusky apical edges on crown and mantle; wing coverts and remiges dusky, externally margined with the color of the back, and here and there with suggestions of faint dusky cross-bars; tail dusky, washed with rufous brown; lores and sides of the head hardly paler than the back; under parts amber brown, passing into ochraceous-tawny on the throat, with a few obsolete cross-bars of dusky along the abdominal line. In juvenile plumage, the under surface is closely banded with blackish, while pileum, back, and upper wing coverts show similar markings. Bill dark horn brown, lower mandible pale yellow. Wing, (two adult males) 61–63, (two adult females) 60, 62; tail, 31–33, (female) 27–28; bill, 15–16.

This very plain-colored species is probably nearly related to the *M. philomela* group, but differs immediately by the absence of gray on the under surface.

*Material examined*.—British Guiana: Roraima (alt. 3,500–5,000 ft.), 10.

<sup>2</sup> *Microcerculus ustulatus duidæ* Chapman: Closely similar to the typical race, but paler throughout; under parts buckthorn brown rather than amber brown shading into grayish buff on foreneck and throat, and more or less profusely marked with blackish bars or spots in the middle of breast and abdomen; dorsal surface also lighter and less rufous, near Brussels brown, inclining to Argus brown on the rump. Wing, (three adult males) 61–64, (two females) 59–60; tail, 33–34, (female) 29–30; bill, 16–17½.

*Material examined*.—Venezuela: Mount Duida (alt. 4,200–6,700 ft.), 6.

*Leucolepis* Reichenbach, Av. Syst. Nat., pl. 57, 1850—type, by subs. desig. (Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 670, 1904), *Formicarius musicus* Boddaert=*Myrmornis arada* Hermann.

*Leucolepis* Richmond, Auk, 19, p. 62, 1902—lapsus for *Leucolepis* Reichenbach. *Rhinorchilus* Miller, Bull. Amer. Mus. N. H., 50, p. 321, 1924—type, by monotypy, *Cyphorhinus thoracicus* Tschudi.

### ***Leucolepis thoracica thoracica* (Tschudi).<sup>1</sup> FERRUGINOUS-BREASTED WREN.**

*Cyphorhinus thoracicus* Tschudi, Arch. Naturg., 10, (1), p. 282, 1844—Peru; idem, Unters. Faun. Peru., Aves, p. 184, pl. 16, fig. 1, 1846—montañas of Uchubamba, near Vitoc, Dept. Junín (type in Neuchâtel Museum); Cabanis, Arch. Naturg., 13, (1), p. 206, 1847;<sup>2</sup> Burmeister, Syst. Uebers. Th. Bras., 3, p. 132, 1856 (ex Tschudi); Sclater and Salvin, Proc. Zool. Soc. Lond., 1873, p. 257—Uchubamba, Peru (diag., cotype in Bremen Museum); Taczanowski, l.c., 1874, p. 505—Monterico; Sharpe, Cat. Bds. Brit. Mus., 6, p. 294, 1881—Peru (ex Tschudi); Taczanowski, Orn. Pér., 1, p. 507, 1884—Monterico.

*Leucolepis thoracica* Berlepsch and Stolzmann, Ornith., 13, p. 106, 1906—Huaynapata and Rio Cadena, Marcapata, Peru.

*Leucolepis thoracica* Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 671, 1904—eastern Peru (cotype in U. S. National Museum).

*Leucolepis thoracica thoracica* Hellmayr, Arch. Naturg., 85, A, Heft 10, p. 3, 1920—Chaquimayo and San Gaban, Carabaya, Peru (crit.).

**Range.**—Tropical and Lower Subtropical zones of Peru, in depts. of Huánuco (Pozuzo), Junín (Uchubamba), Ayacucho (Monterico), Cuzco (Huaynapata, Rio Cadena), and northern Puno (Chaquimayo and San Gaban, Carabaya).<sup>3</sup>

### ***Leucolepis thoracica dichroa* (Sclater and Salvin).<sup>4</sup> CHESTNUT-BREASTED WREN.**

<sup>1</sup> Though certain characters, such as the compressed mesorhinium, the bristly frontal and loreal feathers, etc., are more strongly developed in this species, it is so close in general form and style of coloration to *L. arada* and allies, that its generic separation appears to me unwarranted. The lesser number of rectrices (ten instead of twelve) is not necessarily of generic value, since similar variation takes place in certain (otherwise nearly related) species of *Myrmotherula* and other groups.

<sup>2</sup> *Platyurus affinis* Swainson, cited by Cabanis as a possible earlier name, does not refer to this wren at all, but is undoubtedly the same as *Driocistes e. erythrophthalmus* (Wied), belonging to the Furnariidae.

<sup>3</sup> **Material examined.**—Dept. Huánuco: Pozuzo, 2.—Dept. Puno: Chaquimayo, 1; San Gaban, 1.

<sup>4</sup> *Leucolepis thoracica dichroa* (Sclater and Salvin): Similar to *L. t. thoracica*, but generally darker, especially on the head, wings, and abdomen.

A single adult bird from Mapoto, Ecuador, differs in certain points from three Colombian examples. Chapman, however, does not separate his Ecuadorian series from *dichroa*.

**Material examined.**—Colombia: La Frijolera, Antioquia, 1; San Antonio, western Andes, 2.—Ecuador: Mapoto, 1; Machay, 1.

- Cyphorhinus dichrous* Sclater and Salvin, Proc. Zool. Soc. Lond., 1879, p. 492, pl. 41—"Remedios," Antioquia, Colombia (type now in British Museum); Sharpe, Cat. Bds. Brit. Mus., 6, p. 294, 1881—Remedios.
- Cyporhinus* [sic] *thoracicus dichrous* Taczanowski and Berlepsch, Proc. Zool. Soc. Lond., 1885, p. 71—Machay and Mapoto, Ecuador (crit.).
- Leucolepis dichrous* Chapman, Bull. Amer. Mus. N. H., 36, p. 528, 1917—La Frijolera (Rio Nechi, Antioquia), San Antonio and Cocal, western Andes, and El Eden, central Andes, Colombia.
- Rhinorchilus thoracicus dichrous* Chapman, Bull. Amer. Mus. N. H., 55, p. 574, 1926—Sabanilla, Zamora, Macas region, and lower Sumaco, Ecuador.
- Range*.—Upper Tropical and Subtropical zones of eastern Ecuador and of the western and central Andes of Colombia.

**\**Leucolepis arada arada* (Hermann). ORGAN BIRD.**

- Myrm[ornis] arada* Hermann, Tab. Aff. Anim., p. 211 (note r), 1783—based on "L'Arada" Buffon, Hist. Nat. Ois., 4, p. 480, Cayenne.
- Formicarius musicus* Boddaert, Tabl. Pl. Enl., p. 44, Dec., 1783—based on "L'Arada" Buffon and "Le Musicien de Cayenne" Daubenton, Pl. Enl., pl. 706, fig. 2, Cayenne.
- Turdus cantans* Gmelin, Syst. Nat., 1, (2), p. 825, 1789—based on "L'Arada" Buffon and Daubenton, Pl. Enl., pl. 706, fig. 2, Cayenne.
- Turdus arada* Latham, Ind. Orn., 1, p. 358, 1790—based on "L'Arada" Buffon and Daubenton, Pl. Enl., pl. 706, fig. 2, Cayenne.
- Thryothorus carinatus* Swainson, Orn. Draw., Part 2, pl. 14, 1835.
- Platyrus rubecola* Swainson, Classif. Bds., 2, p. 319, 1837—new name for *Thryothorus carinatus* Swainson.
- Cyphorhinus carinatus* Cabanis, in Tschudi, Unters. Faun. Peru., Aves, p. 184, 1846—British Guiana (descr.).
- Cyphorhinus cantans* Cabanis, Arch. Naturg., 13, (1), p. 206, 1847 (synon.); Schomburgk, Reisen Brit. Guiana, 2, pp. 435, 441, 448, 1848—Pomeroon River and Beara, Morocco region, British Guiana; Cabanis, in Schomburgk, l.c., 3, p. 673, "1848"—Pomeroon River and Wenamu, upper Cuyuni, British Guiana; Burmeister, Syst. Uebers. Th. Bras., 3, p. 132, 1856—northern Brazil ("Pará") and Guiana; Bonaparte, Bull. Soc. Linn. Normandie, 2, p. 34, 1857—Cayenne.
- Cyphorhinus musicus* Sclater, Cat. Coll. Amer. Bds., p. 19, 1862—Cayenne; Sclater and Salvin, Exot. Orn., p. 43, 1867—Cayenne (ex Buffon); Pelzeln, Orn. Bras., 1, p. 47, 1868—Barra do Rio Negro [= Manáos] and Cayenne; idem, Ibis, 1873, p. 111—Cayenne; Sharpe, Cat. Bds. Brit. Mus., 6, p. 290, 1881—British Guiana and Surinam (Albina); Salvin, Ibis, 1885, p. 200—Merumé Mountains, Camacusa, and Atapurow River, British Guiana (descr. juv.); W. L. Sclater, Ibis, 1887, p. 318—Maccasseema, Pomeroon River, British Guiana.

*Leucolepia musica* Ihering and Ihering, Cat. Faun. Braz., 1, p. 325, 1907 (range); Berlepsch, Nov. Zool., 15, p. 106, 1908—Cayenne; Penard, Vog. Guyana, 2, p. 529, 1910—Surinam (habits); Snethlage, Bol. Mus. Goeldi, 8, p. 488, 1914—Rio Jary (Santo Antonio da Cachoeira) and Obidos, Brazil.

*Leucolepia musica musica* Beebe, Trop. Wild Life, 1, pp. 135, 231, 1917—Bartica Grove (nesting habits).

*Leucolepis arada* Chubb, Bds. Brit. Guiana, 2, p. 365, 1921—British Guiana.

*Range*.—French, Dutch, and British Guiana, and Brazil north of the Amazon, west to Manáos.<sup>1</sup>

4: British Guiana (Essequibo River, 1; Caramang River, 3).

### *Leucolepis arada griseolateralis* (Ridgway).<sup>2</sup> GRAY-FLANKED MUSICIAN WREN.

*Cyphorhinus griseolateralis* Ridgway, Proc. U. S. Nat. Mus., 10, "1887," p. 518, pub. Aug., 1888—Diamantina, near Santarém, Brazil (type in U. S. National Museum); Chapman and Riker, Auk, 7, p. 137, 1890—Diamantina.

*Leucolepia griseilateralis* Ihering and Ihering, Cat. Faun. Braz., 1, p. 324, 1907—Diamantina.

*Leucolepia griseolateralis* Snethlage, Bol. Mus. Goeldi, 8, p. 489, 1914—Rio Jamauchim, Tapajóz.

*Range*.—Known only from the right bank of the Rio Tapajóz, Brazil (Diamantina, near Santarém; Rio Jamauchim).

### *Leucolepis arada interposita* Todd.<sup>3</sup> TODD'S MUSICIAN WREN.

<sup>1</sup> There is no difference whatever between specimens from French and British Guiana and others from Manáos.

*Material examined*.—French Guiana: Cayenne, 3; Saint Laurent du Maroni, 1.—British Guiana: Camacusa, 1; Merumé Mountains, 3; Ourumee, 1; Caramang River, 3; Essequibo River, 3.—Brazil: Manáos, 4.

<sup>2</sup> *Leucolepis arada griseolateralis* (Ridgway): Differs from *L. a. arada* by lacking the blackish, white-streaked zone on the sides of the neck, these parts being tinged with grayish instead; by having brownish gray, not rufous auriculars; more brownish gray sides and flanks, etc.

This form, of which we have seen a single female from Santarém, in a way connects the Guianan Organ Bird with its Amazonian representatives. The coloration of the under parts, except for the more grayish lateral parts, is very similar, and the whitish postocular streak is another point of resemblance to *L. a. arada*. *L. a. griseolateralis* agrees, on the other hand, with the Amazonian group in lacking the white, black-edged stripes on the sides of the neck, but differs from all its relatives by the brownish gray instead of rufous auriculars.

<sup>3</sup> *Leucolepis arada interposita* Todd: Not unlike *L. a. griseolateralis*, but auriculars rufous, indistinctly edged with dusky; rufous of chin, throat, and foreneck deeper, tawny rather than tawny-cinnamon; median portion of breast and abdomen more grayish, less buffy. The postocular streak is rather variable, sometimes nearly as buffy white as in *arada* and *griseolateralis*, sometimes rufous as in *modulatrix*. The lower mandible is yellowish, which, together with the grayish posterior under parts and sides of the neck, serves to distinguish it from *L. a. modulatrix*.

*Material examined*.—Brazil: Calama, Rio Madeira, 6; Maroins, Rio Machados, 1; Rio Roosevelt, Matto Grosso, 1.

*Leucolepis modulator interpositus* Todd, Proc. Biol. Soc. Wash., **45**, p. 13, 1932—Villa Braga, left bank of Rio Tapajóz, Brazil (type in Carnegie Museum, Pittsburgh).

*Leucolepis modulator griseolateralis* (not *Cyphorhinus griseolateralis* Ridgway) Hellmayr, Nov. Zool., **17**, p. 262, 1910—Maroins, Rio Machados, and Calama, Rio Madeira (crit.); Naumburg, Bull. Amer. Mus. N. H., **60**, p. 326, 1930—Rio Roosevelt, Matto Grosso.

*Range*.—Brazil, south of the Amazon, from the left bank of the Rio Tapajóz (Villa Braga, Apaçy) west to the right bank of the Rio Madeira, extending south to northern Matto Grosso (Rio Roosevelt).

**\*Leucolepis arada modulatrix** (d'Orbigny). MUSICIAN WREN.

*Thryothorus modulator* d'Orbigny, Voy. Amér. Mérid., Ois., p. 230, 1838—Yuracares, Bolivia (type in Paris Museum examined).

*Sarochalinus rufogularis* Des Murs, in Castelnau, Expéd. Amér. Sud, Zool., **7**, livr. 18, p. 49, pl. 17, fig. 1, June, 1856—Sarayacu, eastern Peru (type in Paris Museum examined).

*Troglodytes arada* (not *Myrmornis arada* Hermann) Lafresnaye and d'Orbigny, Syn. Av., **1**, in Mag. Zool., **7**, cl. 2, p. 25, 1837—Yungas, Bolivia.

*Cyphorhinus modulator* Sclater, Cat. Coll. Amer. Bds., p. 19, 1862—eastern Peru.

*Cyphorhinus modulator* Sclater and Salvin, Exot. Orn., p. 43, 1867—Yungas, Bolivia, and Sarayacu, Peru; idem, Proc. Zool. Soc. Lond., 1867, p. 749—Chyavetas, Peru; idem, l.c., 1873, p. 256—Chyavetas, Yurimaguas, Chamicuros, and Santa Cruz, Peru; idem, l.c., 1879, p. 592—Yungas, Bolivia; Sharpe, Cat. Bds. Brit. Mus., **6**, p. 291, pl. 18, fig. 2, 1881—Bolivia and Peru (Chamicuros); Taczanowski, Orn. Pér., **1**, p. 508, 1884—Chyavetas, Yurimaguas, Chamicuros, Santa Cruz, (?) Loretoyacu, and Moyobamba, Peru; Berlepsch, Journ. Orn., **37**, p. 292, 1889—Tarapoto, Peru.

*Cyphorhinus salvini* (not of Sharpe) Taczanowski, Proc. Zool. Soc. Lond., 1882, p. 6—Yurimaguas, Peru.

*Leucolepia modulator* Ihering, Rev. Mus. Paul., **6**, p. 431, 1905—Rio Juruá, Brazil; idem, Cat. Faun. Braz., **1**, p. 325, 1907—Rio Juruá.

*Leucolepia modulator rufogularis* Hellmayr, Nov. Zool., **14**, p. 41, 1907—Teffé, Rio Solimões; idem, l.c., **14**, p. 346, 1907—Humaythá, Rio Madeira; Snethlage, Journ. Orn., **56**, p. 9, 1908—Cachoeira, Rio Purús, Brazil.

*Leucolepia modulatrix rufogularis* Snethlage, Bol. Mus. Goeldi, **8**, p. 488, 1914—Cachoeira, Rio Purús.

*Leucolepis modulator modulator* Hellmayr, Nov. Zool., **17**, p. 261, 1910—Humaythá, Rio Madeira (crit.); idem, l.c., **28**, p. 269, 1921—Yuracares, Bolivia (crit.).

*Leucolepis modulator* Ridgway, Bull. U. S. Nat. Mus., **50**, Part 3, p. 672, 1904—Bolivia and eastern Peru.

*Leucolepis salvini* Ridgway, Bull. U. S. Nat. Mus., **50**, Part 3, p. 672, 1904—part, descr. juv. from eastern Peru.



*Range*.—Upper Amazonia south of the Amazon, from eastern Peru south to northern Bolivia, east to the left bank of the Rio Madeira (Humaythá).<sup>1</sup>

1: Peru (Moyobamba, 1).

***Leucolepis arada salvini* (Sharpe).<sup>2</sup> SALVIN'S MUSICIAN WREN.**

*Cyphorhinus salvini* Sharpe, Cat. Bds. Brit. Mus., 6, p. 292, pl. 18, fig. 1, 1881—Rio Napo, Ecuador (type in British Museum examined).

*Leucolepis modulator salvini* Hellmayr, Nov. Zool., 17, p. 262, 1910—Cuembí, Rio Putumayo, Colombia, and Rio Napo, Ecuador (crit.); Chapman, Bull. Amer. Mus. N. H., 55, p. 573, 1926—Zamora, Sarayacu, Rio Suno, and below San José, Ecuador.

*Leucolepis salvini* Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 672, 1904—part, eastern Ecuador; Chapman, Bull. Amer. Mus. N. H., 36, p. 527, 1917—Florencia, Colombia; (?) Snethlage, Bol. Mus. Nac. Rio de Janeiro, 2, No. 6, p. 50, 1926—lower Rio Negro.

*Cyphorhinus modulator* (not *Thryothorus modulator* d'Orbigny) Sclater, Proc. Zool. Soc. Lond., 26, p. 63, 1858—Rio Napo, Ecuador.

*Range*.—Tropical zone of southeastern Colombia (Florencia, Rio Caquetá, and Cuembí, Rio Putumayo) and eastern Ecuador; (?) northwestern Brazil (lower Rio Negro).

<sup>1</sup> The distinction between *modulatrix* and *rufogularis* that I formerly advocated seems hard to maintain. Most of the characters prove to be unstable, though Peruvian birds, as a rule, appear to be somewhat darker beneath, with the rufous gular area slightly more extensive, while their upper parts sometimes incline to a darker brown tone, approaching that of *L. m. salvini*. Whether *rufogularis* is merely an intergrade or a recognizable geographical form can only be determined by much larger series than are at present available for examination.

Since this was written, Mr. Todd (Proc. Biol. Soc. Wash., 45, pp. 12–13, 1932) has not only resuscitated *L. m. rufogularis*, but added two more races from upper Amazonia as follows:

(a) *L. modulator rutilans*, type from São Paulo de Olivença, south bank of Rio Solimões, Brazil: "Similar to *L. m. rufogularis*, but averaging slightly smaller, and having the general coloration darker and more rufescent."

(b) *L. modulator transfuvialis*, type from Manacapurú, north bank of Rio Solimões, Brazil: "Similar to *L. m. rufogularis*, but rather smaller and with general coloration lighter and less rufescent; similar to *L. m. rutilans*, but decidedly paler in general coloration."

*Material examined*.—Bolivia: Yuracares, 2; San Mateo, 3.—Peru: Sarayacu, 1; Chyavetas, 1; Tarapoto, 1; Yurimaguas, 1; Chamicuros, 1.—Brazil: Rio Juruá, 2; Humaythá, Rio Madeira, 1; Teffé, Rio Solimões, 3.

<sup>2</sup> *Leucolepis arada salvini* (Sharpe): Similar to *L. m. modulatrix*, but darker above; cheeks and auriculars uniform dark brown without rufous streaks; rufous of crown more abruptly defined; superciliaries shorter.

Two specimens from southeastern Colombia I cannot satisfactorily separate from an Ecuadorian series.

*Material examined*.—Colombia: Cuembí, Rio Putumayo, 2.—Ecuador: Rio Napo, 2; Sarayacu, 3.

**\**Leucolepis phaeocephala*<sup>1</sup> *phaeocephala* (Sclater). DUSKY-HEADED SONG WREN.**

*Cyphorhinus phaeocephalus* Sclater, Proc. Zool. Soc. Lond., 28, p. 291, 1860—Esmeraldas, Ecuador (type now in British Museum); idem, Cat. Coll. Amer. Bds., p. 19, 1862—Esmeraldas.

*Cyphorhinus phaeocephalus* Sclater and Salvin, Exot. Orn., p. 43, pl. 22, 1867—Esmeraldas; idem, Proc. Zool. Soc. Lond., 1879, p. 492—Remedios, Antioquia, Colombia; Sharpe, Cat. Bds. Brit. Mus., 6, p. 292, 1881—Esmeraldas; Salvadori and Festa, Boll. Mus. Zool. Torino, 14, No. 357, p. 5, 1899—Rio Peripa, Ecuador.

*Cyphorhinus phaeocephalus* Berlepsch and Taczanowski, Proc. Zool. Soc. Lond., 1883, p. 539—Chimbo, Ecuador.

*Leucolepis phaeocephalus* Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 672, 1904—Guayaquil, Ecuador.

*Leucolepis phaeocephalus phaeocephalus* Hellmayr, Proc. Zool. Soc. Lond., 1911, p. 1088—Juntas, Rio Tamaná, Colombia (crit.); Chapman, Bull. Amer. Mus. N. H., 36, p. 527, 1917—Alto Bonito (Rio Sucio), Baudo (Chocó), Barbacoas (Nariño), and Puerto Valdivia (lower Cauca), Colombia (crit.); idem, l.c., 55, p. 574, 1926—Esmeraldas, Rio de Oro, Cerro Manglar Alto, Bucay, Chimbo, and La Chonta, Ecuador (crit.).

*Cyphorhinus brunescens* Sharpe, Cat. Bds. Brit. Mus., 6, p. 293, 1881—"Cauca Valley"—Remedios, Antioquia (type now in British Museum;=immature).

*Leucolepis brunescens* Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 672, 1904 (ex Sharpe).

**Range.**—Tropical zone of western Colombia, north to the Rio Sucio (Alto Bonito), and western Ecuador, south to Prov. El Oro.<sup>2</sup>  
1: Ecuador (Puente de Chimbo, 1).

***Leucolepis phaeocephala propinqua* Todd.<sup>3</sup> JARAQUIEL SONG WREN.**

<sup>1</sup>*Leucolepis phaeocephala* is probably conspecific with *L. arada*.

<sup>2</sup>Specimens from Antioquia (*C. brunescens*), though very slightly paler, appear to be inseparable from *phaeocephala*, of Ecuador and Chocó, the characters given by Sharpe being those of the immature plumage.

**Material examined.**—Colombia: Remedios, 1; Puerto Valdivia, 1; Juntas de Tamaná, 1.—Ecuador: Esmeraldas, 2; San Javier, Prov. Esmeraldas, 1; Rio Peripa, 1; Chimbo, 3.

<sup>3</sup>*Leucolepis phaeocephala propinqua* Todd: "Decidedly paler than typical *phaeocephala*, the upper parts Prout's brown instead of deep chestnut brown, and the under parts correspondingly paler, with the throat in more decided contrast with the rest of the under surface." (Todd, l.c.).

This race, which is autoptically unknown to us, differs from the two succeeding forms in lacking all trace of the grayish area on the under parts (fide Todd, in litt.). It appears to replace *L. p. assimilis* in the lowlands of northern Colombia. The Carnegie Museum has five specimens from Jaraquiel, a few miles above Monteria, in the valley of the Sinú River, Bolívar, and two from El Tambor, Rio Lebrija, a tributary of the lower Magdalena, Santander. The latter are a trifle darker both above and below.

*Leucolepis phaeocephalus propinquus* Todd, Proc. Biol. Soc. Wash., 32, p. 114, 1919—Jaraquiel, Bolivar, Colombia (type in Carnegie Museum); idem, Ann. Carnegie Mus., 18, p. 357, 1928—Jaraquiel.

**Range.**—Tropical zone of northern Colombia, in states of Bolivar (Jaraquiel, near Monteria, Sinú River) and Santander (El Tambor, Rio Lebrija, Magdalena drainage).

***Leucolepis phaeocephala lawrencii* (Lawrence).<sup>1</sup> LAWRENCE'S SONG WREN.**

*Cyphorhinus lawrencii* (Selater MS.) Lawrence, Ann. Lyc. Nat. Hist. N. Y., 8, p. 5, May, 1863—based on *Cyphorhinus cantans* (not *Turdus cantans* Gmelin) Lawrence, Ann. Lyc. Nat. Hist. N. Y., 7, p. 293, 1861, Panama Railroad (type in coll. of George N. Lawrence, now in the American Museum of Natural History, New York); Selater and Salvin, Proc. Zool. Soc. Lond., 1864, p. 345—"Veragua" and Panama; Baird, Rev. Amer. Bds., 1, p. 113, 1864—Panama Railroad (crit.); Selater and Salvin, Exot. Orn., p. 41, pl. 21, 1867—Isthmus of Panama and Chepo, Panama; Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 75, 1880—part, Panama (Lion Hill, Chepo); Sharpe, Cat. Bds. Brit. Mus., 6, p. 293, 1881—part, Panama; Bangs, Proc. New Engl. Zool. Cl., 2, p. 27, 1900—Loma del Leon, Panama.

*Leucolepis lawrencii* Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 673, 1904—part, Panama (Lion Hill); Chepo; Panama; Nata, Coclé; Stone, Proc. Acad. Nat. Sci. Phila., 70, p. 272, 1918—Gatun, Panama.

*Leucolepis lawrencii assimilis* Todd, Proc. Biol. Soc. Wash., 32, p. 114, 1919—"Sautata" [=Saotata], Rio Atrato, Colombia (type in Carnegie Museum, Pittsburgh); Bangs and Barbour, Bull. Mus. Comp. Zool., 65, p. 222, 1922—Rio Esnápe, Darien.

*Leucolepis phaeocephalus assimilis* Griscom, Bull. Mus. Comp. Zool., 69, p. 182, 1929—Cana, Darien.

**Range.**—Tropical zone of Panama, except the extreme north-western section, and the adjacent districts of Colombia (Saotata, lower Rio Atrato).

<sup>1</sup>*Leucolepis phaeocephala lawrencii* (Lawrence) differs from the typical Ecuadorian bird principally by having the rufous jugular area abruptly defined against the whitish abdomen, only the flanks being deep brown.

The close similarity of a single Panama Railroad skin, thus topotypical of *lawrencii*, to six specimens from the Rio Esnápe, Darien, identified by Mr. Bangs as *L. l. assimilis*, and their decidedly paler coloration in comparison to a series from Costa Rica raised serious doubts as to the proper application of Lawrence's name. Mr. John T. Zimmer, to whom I wrote for further details concerning the types, very kindly reexamined the whole material in the American Museum of Natural History, and informs me that eight topotypes of *assimilis* from Saotata prove to be inseparable from the Canal Zone form (*lawrencii*), whereas Costa Rican birds, heretofore referred to the latter, show marked differences. In other words, Mr. Todd, while correctly recognizing the existence of two races, named the wrong form. The results of Mr. Zimmer's comparison have since been published in full.

**Material examined.**—Panama: Panama Railroad, 1; Rio Esnápe, Darien, 6.

**\*Leucolepis phaeocephala infuscata (Zimmer).<sup>1</sup> COSTA RICAN SONG WREN.**

*Cyphorhinus lawrencii infuscatus* Zimmer, Amer. Mus. Nov., 573, p. 3, 1932—Carrillo, Costa Rica (type in the American Museum of Natural History, New York).

*Cyphorhinus lawrencei* (not *Cyphorhinus lawrencii* Lawrence, 1861) Lawrence, Ann. Lyc. Nat. Hist. N. Y., 9, p. 92, 1868—Angostura, Costa Rica; Zeledón, Anal. Mus. Nac. Costa Rica, 1, p. 105, 1887—Pacuaré and Matina, Costa Rica; Lantz, Trans. Kans. Acad. Sci., 16, p. 224, 1899—San Juan Valley, Costa Rica.

*Cyphorhinus lawrencii* Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 75, 1880—part, Costa Rica (Angostura, "Valza"); Sharpe, Cat. Bds. Brit. Mus., 6, p. 293, 1881—part, Costa Rica.

*Leucolepis lawrencii* Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 673, 1904—part, Costa Rica (crit.); Carriker, Ann. Carnegie Mus., 6, p. 762, 1910—Caribbean lowlands of Costa Rica (habits).

*Cyphorhinus phaeocephalus lawrencii* Peters, Bull. Mus. Comp. Zool., 71, p. 332, 1931—Almirante, Panama.

**Range.**—Caribbean lowlands of Costa Rica and adjacent parts of extreme western Panama (Almirante Bay).

4: Costa Rica (La Vijagua, 1; Guácimo, 1; Siquirres, 1; El Hogar, 1).

**Leucolepis phaeocephala richardsoni (Salvin).<sup>2</sup> RICHARDSON'S SONG WREN.**

*Cyphorhinus richardsoni* Salvin, Bull. Brit. Orn. Cl., 1, p. XXXII, 1893—Santo Domingo, Chontales, Nicaragua (type in Salvin-Godman Collection, now in British Museum); idem, Ibis, 1893, p. 263 (reprint).

*Cyphorhinus lawrencii* (not of Lawrence) Ridgway, Proc. U. S. Nat. Mus., 6, p. 398, 1883—Los Sábalos, Nicaragua; idem, l.c., 10, p. 585, 1888—Segovia River, Honduras.

*Leucolepis lawrencii* Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 673, 1904—part, Nicaragua and Honduras.

<sup>1</sup>*Leucolepis phaeocephala infuscata* (Zimmer): Darker than either *L. p. lawrencii* or *L. p. richardsoni*; forehead and crown often distinctly blackish; abdomen less whitish; malar region with reduced amount of blackish, more like *richardsoni*.

**Additional material examined.**—Costa Rica: La Vijagua, 10.

<sup>2</sup>*Leucolepis phaeocephala richardsoni* (Salvin): Exceedingly similar to *L. p. lawrencii*, but rump slightly brighter and more rufescent, and malar region with a minimum of, sometimes no, blackish at all. The lores appear to be more rufescent than in the more southern races, though certain examples of the latter are not distinguishable on this score, and the middle of the belly is generally darker. The barring of the upper wing coverts alluded to in the original description varies too much individually to be of any use in subspecific discrimination.

The preceding diagnosis is based on information received from Mr. John T. Zimmer about four specimens from Nicaragua (Los Sábalos) and one from Honduras (Segovia River), all in the United States National Museum.

*Range*.—Tropical zone of southeastern Honduras (Segovia River) and eastern Nicaragua (Los Sábalos and Santo Domingo, Chontales).

### Family PRUNELLIDAE. Accentors

#### Genus PRUNELLA Vieillot

*Prunella* Vieillot, Anal. Nouv. Orn. Elém., p. 43, 1816—type, by monotypy, "Fauvette de haie" Buffon=*Motacilla modularis* Linnaeus.

#### **Prunella montanella** (Pallas). MOUNTAIN ACCENTOR.

*Motacilla montanella* Pallas, Reisen Russ. Reich., 3, p. 695, 1776—Dauria.

*Prunella montanella* Swarth, Proc. Calif. Acad. Sci., (4), 17, p. 251, 1928—Nunivak Island, Alaska.

*Range*.—Siberia, from the Ural Mountains to the Bering Sea, south to Transbaicalia, the Tian Shan Mountains, and Mongolia; wintering in northern China and Korea. Accidental on Nunivak Island, Alaska (female, October 3).

### Family MIMIDAE. Mockingbirds

#### Genus TOXOSTOMA Wagler

*Toxostoma* Wagler, Isis, 24, p. 528, 1831—type, by monotypy, *Toxostoma vetula* Wagler=*Orpheus curvirostris* Swainson.

*Harpes* (not of Goldfuss, 1839) Gambel, Proc. Acad. Nat. Sci. Phila., 2, p. 264, 1845—type, by orig. desig., *Harpes redivivus* Gambel.

*Harporynchus* Cabanis, Arch. Naturg., 10, (1), p. 323, 1847—new name for *Harpes* Gambel, preoccupied.

*Methriopterus* Reichenbach, Av. Syst. Nat., pl. 55, 1850—type, by monotypy, *Turdus rufus* Linnaeus.

*Antimimus* Sundevall, Meth. Nat. Av. Disp. Tent., p. 13, 1872—type, by monotypy, *Turdus rufus* Linnaeus.

#### **\*Toxostoma rufum** (Linnaeus). BROWN THRASHER.

*Turdus rufus* Linnaeus, Syst. Nat., 10th ed., 1, p. 169, 1758—based on "The Fox-colored Thrush" Catesby, Nat. Hist. Carolina, 1, p. 28, pl. 28—"Carolina and Virginia"—South Carolina.

*Harporynchus longicauda* Baird, Rep. Pac. R. R. Surv., 9, p. 353 (in text), 1858—Republican Fork, western Kansas (type in U. S. National Museum).

*Toxostoma rufum* Ridgway, Bull. U. S. Nat. Mus., 50, Part 4, p. 187, 1907—(monog., full bibliog.).

*Range*.—Breeds mainly in Transition and Austral zones from southern Alberta to northern Maine, south to eastern Louisiana and central Florida, and from base of Rocky Mountains in Montana, Wyoming, and Colorado eastward; winters from southeastern

Missouri and North Carolina to central southern Texas, central Florida, and casually farther north; accidental in Arizona and Europe.

53: Maine (New Vineyard, 1); Massachusetts (Natick, 1; Taunton, 1); Connecticut (East Hartford, 8); New York (Shelter Island, 4); Wisconsin (Beaver Dam, 5; Woodruff, 1); Illinois (Chicago, 4; Grand Chain, 4; Joliet, 2; Lake Forest, 1; Fox Lake, 2); Indiana (Kouts, 1); Mississippi (Vicksburg, 2; Holly Springs, 2); Louisiana (Chef Menteur, 2); Colorado (Fort Lyon, 4); Texas (Port Lavaca, 1); Florida (Mary Esther, 3; Punta Rassa, 1; Nassau County, 1; Santa Rosa County, 2).

**\**Toxostoma longirostre longirostre* (Lafresnaye). LONG-BILLED THRASHER.**

*Orpheus longirostris* Lafresnaye, Rev. Zool., 1, p. 55, 1838—"du Mexique et de la Californie"—Mexico (type now in Museum of Comparative Zoology, Cambridge, Mass.).

*Toxostoma longirostre longirostre* Ridgway, Bull. U. S. Nat. Mus., 50, Part 4, p. 191, 1907 (monog., full bibliog.).

*Toxostoma longirostris longirostris* Bangs, Bull. Mus. Comp. Zool., 70, p. 323, 1930 (note on type).

*Range*.—Southeastern Mexico, in states of Vera Cruz, Queretaro, Mexico, and Puebla.

2: Mexico, Vera Cruz (Pueblo Viejo, 1; Jalapa, 1).

**\**Toxostoma longirostre sennetti* (Ridgway). SENNETT'S THRASHER.**

*Harporynchus longirostris sennetti* Ridgway, Proc. U. S. Nat. Mus., 10, p. 506, 1888—Lomita Ranch, Texas (type in U. S. National Museum).

*Toxostoma longirostre sennetti* Ridgway, Bull. U. S. Nat. Mus., 50, Part 4, p. 192, 1907 (monog., full bibliog.); Phillips, Auk, 28, p. 79, 1911—Matamoros, Altamira, Galindo, and Rio Cruz, Tamaulipas.

*Range*.—Resident in Lower Austral and Upper Tropical zones from lower Rio Grande Valley and Gulf coast of Texas south to central Nuevo Leon, Tamaulipas, Coahuila, and San Luis Potosi; occasionally north to Galveston, Texas.

9: Texas (Corpus Christi, 1; Brownsville, 2; Harlingen, 3); Mexico (Tamaulipas, 2; Nuevo Leon, 1).

**\**Toxostoma guttatum* (Ridgway). COZUMEL THRASHER.**

*Harporynchus guttatus* Ridgway, Proc. Biol. Soc. Wash., 3, p. 21, March, 1885—Cozumel Island, Yucatan (type in U. S. National Museum).

*Harporhynchus melanostoma* Salvin, Ibis, (5), 3, p. 187, April, 1885—Cozumel Island (type now in British Museum).

*Toxostoma guttatum* Ridgway, Bull. U. S. Nat. Mus., 50, Part 4, p. 193, 1907 (monog., full bibliog.); Griscom, Amer. Mus. Nov., 236, p. 11, 1926—Cozumel (habits).

*Range*.—Cozumel Island, Yucatan.

4: Cozumel Island.

***Toxostoma ocellatum* (Sclater). OCELLATED THRASHER.**

*Harporhynchus ocellatus* Slater, Proc. Zool. Soc. Lond., 1862, p. 18, pl. 3—Oaxaca, southwestern Mexico (type now in British Museum); Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 32, 1879—southern Mexico.

*Toxostoma ocellatum* Ridgway, Bull. U. S. Nat. Mus., 50, Part 4, p. 194, 1907 (monog., full bibliog.).

*Range*.—South-central Mexico, in states of Puebla, Mexico, and Oaxaca.

**\**Toxostoma cinereum cinereum* (Xantus). SAN LUCAS THRASHER.**

*Harporhynchus cinereus* Xantus, Proc. Acad. Nat. Sci. Phila., 11, p. 298, 1859—Cape San Lucas, Lower California (type in U. S. National Museum).

*Toxostoma cinereum cinereum* Ridgway, Bull. U. S. Nat. Mus., 50, Part 4, p. 195, 1907 (monog., full bibliog.); Townsend, Bull. Amer. Mus. N. H., 48, p. 24, 1923—Lower California; McLellan, Proc. Calif. Acad. Sci., (4), 15, p. 314, 1926—Cape San Lucas; Grinnell, Univ. Calif. Pub. Zool., 32, p. 208, 1928—Lower California (crit.).

*Range*.—Lower Austral and Arid Tropical zones of Lower California from about latitude 28° southward.

6: Lower California (La Paz, 3; Todos Santos, 2; San José del Cabo, 1).

***Toxostoma cinereum mearnsi* (Anthony).<sup>1</sup> MEARNS'S THRASHER.**

*Harporhynchus cinereus mearnsi* Anthony, Auk, 12, p. 53, 1895—San Quintin, Lower California (type now in Carnegie Museum, Pittsburgh).

*Toxostoma cinereum mearnsi* Ridgway, Bull. U. S. Nat. Mus., 50, Part 4, p. 196, 1907 (monog., full bibliog.); Todd, Ann. Carnegie Mus., 18, p. 357, 1928 (notice of type); Grinnell, Univ. Calif. Pub. Zool., 32, p. 208, 1928—Lower California (crit.).

*Range*.—Pacific slope of northern Lower California (Lower Austral zone) from latitude 28° 30' to latitude 31°.

<sup>1</sup>*Toxostoma cinereum mearnsi* (Anthony): Differs from *T. c. cinereum* by much darker coloration, including the markings on the chest, which are larger than in the typical race.

**\*Toxostoma bendirei** (Coues). BENDIRE'S THRASHER.

*Harporhynchus bendirei*<sup>1</sup> Coues, Amer. Natur., 7, p. 330 (footnote), 1873—Tucson, Arizona (type in U. S. National Museum).

*Harporhynchus cinereus* var. *bendirei* Henshaw, Rep. Orn. Spec. Wheeler's Surv., p. 154, 1872—Arizona.

*Toxostoma bendirei* Ridgway, Bull. U. S. Nat. Mus., 50, Part 4, p. 197, 1907 (monog., full bibliog.); Townsend, Bull. Amer. Mus. N. H., 48, p. 24, 1923—Tiburón Island, Gulf of California; van Rossem, Trans. San Diego Soc. N. H., 6, p. 276, 1931—Sonora.

*Range*.—Lower Austral deserts of the southwestern United States. Breeds in southeastern California, Arizona, southwestern New Mexico, and northern Sonora; winters south to northern Sinaloa; accidental in Colorado and California (Los Angeles).

6: Arizona (Tucson, 3; Phoenix, 1; Fort Lowell, 2).

**\*Toxostoma curvirostre oberholseri** Law.<sup>2</sup> BROWNSVILLE THRASHER.

*Toxostoma curvirostris oberholseri* Law, Condor, 30, p. 151, 1928—San Diego, Texas, Duval County, Texas (type in U. S. National Museum).

*Orpheus curvirostris* (not of Swainson) McCall, Proc. Acad. Nat. Sci. Phila., 1848, p. 63—Matamoros, Tamaulipas.

*Toxostoma curvirostre curvirostre* Ridgway, Bull. U. S. Nat. Mus., 50, Part 4, p. 199, 1907—part, Texas and northeastern Mexico (monog., full bibliog.); Phillips, Auk, 28, p. 80, 1911—Matamoros, Tamaulipas.

*Range*.—Southeastern Texas and northeastern Mexico, in states of Tamaulipas, Nuevo Leon, and Coahuila.

12: Texas (Corpus Christi, 2; Brownsville, 1; Harlingen, 3; Laredo, 1; Crystal City, 1); Tamaulipas (Nuevo Laredo, 2); Coahuila (Sabinas, 2).

**\*Toxostoma curvirostre curvirostre** (Swainson). CURVE-BILLED THRASHER.

*Orpheus curvirostris* Swainson, Philos. Mag., (n.s.), 1, No. 5, p. 369, May, 1827—tableland [of Mexico]=probably near Temascaltepec (type in Bullock Collection).

*Pomatorhinus turdinus* Temminck, Nouv. Rec. Pl. Col., livr. 75, pl. 441, 1827—"New Holland," errore (type in Leiden Museum).

*Turdus deflexus* Lichtenstein, Preis-Verz. Mex. Vög., p. 2, 1830—Mexico (type in Berlin Museum).

<sup>1</sup> Various emended to *bendiri* or *bendirii*.

<sup>2</sup> *Toxostoma curvirostre oberholseri* Law: Nearest to *T. c. curvirostre*, but with shorter wings and tail, and less strongly curved bill; brown color tones slightly more slaty; under parts paler buffy. Wing (male), 98–103; tail, 98–110; bill, 26–30.



*Toxostoma vetula* Wagler, Isis, 24, p. 523, 1831—Mexico (types in Munich Museum examined).<sup>1</sup>

*Toxostoma curvirostre curvirostre* Ridgway, Bull. U. S. Nat. Mus., 50, Part 4, p. 199, 1907—part, excl. Texas and northeastern Mexico (monog., full bibliog.).

**Range.**—Austral and Arid Tropical zones from southeastern Arizona and southern New Mexico south to Colima, Michoacan, Guerrero, Oaxaca, Puebla, and Vera Cruz.

8: Mexico: Guerrero (Iguala, 4); Jalisco (Bolaños, 1; Tuxpan, 3).

**Toxostoma curvirostre occidentale** (Ridgway).<sup>2</sup> MAZATLAN THRASHER.

*Methriopterus curvirostris occidentalis* Ridgway, Proc. U. S. Nat. Mus., 5, p. 9, 1882—Mazatlan, Sinaloa (type in U. S. National Museum).

*Toxostoma curvirostre occidentale* Ridgway, Bull. U. S. Nat. Mus., 50, Part 4, p. 210, 1907 (monog., full bibliog.); McLellan, Proc. Calif. Acad. Sci., (4), 16, p. 40, 1927—San Blas, Nayarit.

**Range.**—Coast region of western Mexico, in states of Sinaloa, Jalisco, and Nayarit.

**Toxostoma curvirostre maculatum** (Nelson).<sup>3</sup> SPOTTED THRASHER.

*Harporhynchus curvirostris maculatus* Nelson, Auk, 17, p. 269, 1900—Alamos, Sonora (type in U. S. National Museum).

*Toxostoma curvirostre maculatum* Ridgway, Bull. U. S. Nat. Mus., 50, Part 4, p. 202, 1907 (monog., full bibliog.); van Rossem, Trans. San Diego Soc. N. H., 6, p. 274, 1931—Sonora (crit.).

**Range.**—Northwestern Mexico, in southern Sonora and southwestern Chihuahua.

**\*Toxostoma curvirostre palmeri** (Coues).<sup>4</sup> PALMER'S THRASHER.

*Harporhynchus curvirostris* var. *palmeri* (Ridgway, MS.) Coues, Key N. Am. Bds., p. 351 (in text), 1872—Tucson, Arizona (type in U. S. National Museum).

<sup>1</sup> The three typical examples agree with birds from Vera Cruz (Perote) and Oaxaca, having well-defined white tips to the lateral rectrices, and are very different from *T. c. palmeri*.

<sup>2</sup> *Toxostoma curvirostre occidentale* (Ridgway) is said to differ from *T. c. curvirostre* by larger size, particularly longer tail; browner upper parts; more buffy under parts, especially posteriorly, etc.

<sup>3</sup> *Toxostoma curvirostre maculatum* (Nelson): "Most closely related to *T. c. occidentale*, from which it may be distinguished by its darker colors and smaller size." (Nelson, l.c.).

<sup>4</sup> *Toxostoma curvirostre palmeri* (Coues): Similar to *T. c. oberholseri* Law, but differs in browner coloration and smaller as well as less distinct spots on under parts; differs from *T. c. occidentale* by smaller spots on under parts and longer bill.

*Toxostoma curvirostre palmeri* Ridgway, Bull. U. S. Nat. Mus., 50, Part 4, p. 202, 1907 (monog., full bibliog.); van Rossem, Trans. San Diego Soc. N. H., 6, p. 275, 1931—Sonora (crit.).

**Range.**—Lower Austral zone from central western Arizona south to northern Sonora and northern Chihuahua.

16: Arizona (Phoenix, 4; Huachuca Mountains, 2; Tucson, 4; Paradise, 1); Mexico, Chihuahua (Babicora, 5).

***Toxostoma curvirostre insularum* van Rossem.<sup>1</sup> SAN ESTEBAN THRASHER.**

*Toxostoma curvirostre insularum* van Rossem, Trans. San Diego Soc. N. H., 6, p. 207, 1930—San Esteban Island, Sonora, Mexico (type in Dickey Collection, Pasadena); idem, l.c., p. 276, 1931—Islands of San Esteban and Tiburón.

**Range.**—Islands of San Esteban and Tiburón, Gulf of California, Sonora, northwestern Mexico.

**\**Toxostoma redivivum redivivum* (Gambel). CALIFORNIA THRASHER.**

*Harpes rediviva* Gambel, Proc. Acad. Nat. Sci. Phila., 2, p. 264, 1845—Monterey, in upper California (type in the Academy of Natural Sciences, Philadelphia).

*Harporhynchus redivivus pasadenensis* Grinnell, Auk, 15, p. 237, 1898—Pasadena, California (type in coll. of J. Grinnell, now in U. S. National Museum).

*Toxostoma rediviva helva* Thayer and Bangs, Proc. New Engl. Zool. Cl., 4, p. 17, 1907—Rosario, Lower California (type in coll. of J. E. Thayer, now in Museum of Comparative Zoology, Cambridge, Mass.; cf. Bangs, Bull. Mus. Comp. Zool., 70, p. 324, 1930).

*Toxostoma redivivum helvolum* (lapsu) Ridgway, Bull. U. S. Nat. Mus., 50, Part 4, p. 888, 1907—Lower California (ex Thayer and Bangs).

*Toxostoma redivivum* Ridgway, Bull. U. S. Nat. Mus., 50, Part 4, p. 203, 1907—part, excluding references and localities from northern California (monog., bibliog.).

*Toxostoma redivivum redivivum* Grinnell, Auk, 34, p. 429, 1917 (range in California); Oberholser, Auk, 35, p. 52, 1918 (crit., range in California); Grinnell, Univ. Calif. Pub. Zool., 32, p. 210, 1928—northwestern Lower California (crit.).

*Toxostoma redivivum pasadenense* Grinnell, Condor, 23, p. 165, 1921 (crit.).

<sup>1</sup>*Toxostoma curvirostre insularum* van Rossem: "Nearest to *T. c. palmeri* (Coues) of Arizona and northern Sonora, but coloration paler throughout and ash gray instead of buffy gray in tone; under parts more sharply spotted than in *palmeri*; similar in this latter respect to *T. c. maculatum* (Nelson) of southern Sonora, but body color, of course, very different from that race. Measurements of the type are: wing, 108; tail, 124; exposed culmen, 30.5; tars., 33; middle toe minus claw, 25." (van Rossem, l.c.).

*Toxostoma redivivum helvum* Oberholser, Auk, 35, p. 60, 1918—Lower California (crit.).

*Range*.—Austral zones of California west of the high Sierra Nevada and the southeastern deserts, from Monterey and Placer counties through the San Diegan district to latitude 30° in Lower California.<sup>1</sup>

10: California (Monterey, 3; Riverside, 1; Santa Barbara, 1; Burbank, 1; Lakeside, 1; La Puerta Valley, 1; Claremont, 1; Long Beach, 1).

***Toxostoma redivivum sonomae* Grinnell.<sup>2</sup> SONOMA THRASHER.**

*Toxostoma redivivum sonomae* Grinnell, Pac. Coast Avifauna, 11, p. 155, 1915—one mile west of Guerneville, Sonoma County, California (type in Museum of Vertebrate Zoology, Berkeley); idem, Auk, 34, p. 429, 1917—California (crit.); Oberholser, Auk, 35, p. 56, 1918 (crit., range); Grinnell, Univ. Calif. Pub. Zool., 35, p. 337, 1930—Mount Lassen, California (crit.).

*Toxostoma redivivum* (not *Harpes rediviva* Gambel) Ridgway, Bull. U. S. Nat. Mus., 50, Part 4, p. 203, 1907—northern California (monog., full bibliog.).

*Range*.—Upper Austral zone of northern California from the head of the Sacramento Valley (Baird, Shasta County) and inner coast ranges to Eldorado County, and in the coast belt through the San Francisco Bay region to Santa Cruz.

6: California (La Honda, 1; Los Gatos, 2; Palo Alto, 2; San Francisco, 1).

**\**Toxostoma lecontei lecontei* Lawrence. LECONTE'S THRASHER.**

*Toxostoma Lecontei*<sup>3</sup> Lawrence, Ann. Lyc. Nat. Hist. N. Y., 5, p. 121, 1851—California, near the junction of the Gila and Colorado rivers=Fort Yuma, Arizona (type now in American Museum of Natural History, New York).

*Toxostoma lecontei lecontei* Ridgway, Bull. U. S. Nat. Mus., 50, Part 4, p. 205, 1907 (monog., full bibliog.); Grinnell, Univ. Calif. Pub. Zool., 32, p. 210, 1928—Colorado Desert, Lower California; van Rossem, Trans. San Diego Soc. N. H., 6, p. 276, 1931—Puerto de Lobos, Sonora.

*Range*.—Lower Austral deserts of southeastern California, extreme southern Nevada, extreme southwestern Utah, Arizona, and northeastern Lower California south to San Felipe Bay; also the southern San Joaquin Valley of California from Onyx and

<sup>1</sup> Specimens from Lower California (*T. r. helvum*), according to Grinnell, cannot be properly separated from typical *redivivum*. We have no material to investigate the question for ourselves.

<sup>2</sup> *Toxostoma redivivum sonomae* Grinnell: "Similar to *T. r. redivivum*, but brown of upper parts more rufescent (less grayish); upper throat and chin more washed with buff; jugular band more buffy (less grayish) and not so dark; buffy ochraceous of posterior lower parts darker." (Oberholser, l.c.).

<sup>3</sup> Emended to *lecontei*.

Buena Vista Lake, Kern County, to near Huron, Fresno County; and northwestern Sonora (Puerto de Lobos).

5: California (Pelican Lake, 1; Palm Lake, 1); Arizona (Maricopa, 1; Sacaton, 2).

**Toxostoma lecontei arenicola** (Anthony). DESERT THRASHER.

*Harporhynchus lecontei arenicola* Anthony, Auk, 14, p. 167, 1897—Rosalia Bay, Lower California (type now in Carnegie Museum, Pittsburgh; cf. Todd, Ann. Carnegie Mus., 18, p. 357, 1928).

*Toxostoma lecontei arenicola* Ridgway, Bull. U. S. Nat. Mus., 50, Part 4, p. 207, 1907 (monog., full bibliog.); Grinnell, Univ. Calif. Pub. Zool., 32, p. 210, 1928—Lower California.

*Range*.—Pacific coast-strip of Lower California (Lower Austral zone), from latitude 26° to 29°.

**\*Toxostoma dorsale dorsale** Henry. CRISSAL THRASHER.

*Toxostoma dorsalis* Henry, Proc. Acad. Nat. Sci. Phila., 10, Nos. 7-9, April-May, p. 117 [suppressed page], 1858—Fort Thorn, Donna Ana County, New Mexico (type in U. S. National Museum); cf. Oberholser, Auk, 37, p. 303, 1920.

*Toxostoma crissalis* Henry, Proc. Acad. Nat. Sci. Phila., 10, p. 117 [corrected page], June, 1858—same locality (new name for *Toxostoma dorsalis* Henry).

*Toxostoma crissale* Ridgway, Bull. U. S. Nat. Mus., 50, Part 4, p. 207, 1907—part, excl. Trinidad Valley, Lower California (monog., full bibliog.).

*Toxostoma crissale crissale* Grinnell, Univ. Calif. Pub. Zool., 32, p. 211, 1928—Colorado Desert, northeastern Lower California; van Rossem, Trans. San Diego Soc. N. H., 6, p. 276, 1931—Pesqueira, Sonora.

*Range*.—Desert of the Austral zones from southern Nevada and southern Utah south to extreme northeastern Lower California, Sonora, and Chihuahua, and from southeastern California to central western Texas.

52: New Mexico (Deming, 34); Arizona (Phoenix, 8; Tombstone, 1; Tucson, 1; Calabasas, 5; Fort Lowell, 1; Chiricahua Mountains, 1; Paradise, 1).

**Toxostoma dorsale trinitatis** Grinnell.<sup>1</sup> TRINIDAD THRASHER.

*Toxostoma crissale trinitatis* Grinnell, Condor, 29, p. 127, 1927—El Valle de la Trinidad, latitude 31° 20', Lower California (type in Museum of Vertebrate Zoology, Berkeley); idem, Univ. Calif. Pub. Zool., 32, p. 211, 1928—Trinidad Valley.

<sup>1</sup> *Toxostoma dorsale trinitatis* Grinnell: "Similar to *T. d. dorsale*, but bill longer and distinctly more curved, and tone of coloration darker, more slaty, wings and tail being between fuscous and fuscous-black rather than near mummy brown." (Grinnell, l.c.).

*Toxostoma crissale* (not of Henry) Ridgway, Bull. U. S. Nat. Mus., 50, Part 4, p. 207, 1907—part, Trinidad Valley, Lower California.

*Range*.—Trinidad Valley, northern Lower California.

### Genus MELANOTIS Bonaparte

*Melanotis* Bonaparte, Consp. Gen. Av., 1, p. 276, 1850—type, by monotypy, *Turdus melanotis* Temminck=*Orpheus caerulescens* Swainson.

#### \**Melanotis caerulescens caerulescens* (Swainson). BLUE MOCKINGBIRD.

*Orpheus caerulescens* Swainson, Philos. Mag., (n.s.), 1, No. 5, p. 369, May, 1827—Mexico (type now in Cambridge, England, Museum).

*Turdus melanotis* Temminck, Nouv. Rec. Pl. Col., livr. 84, pl. 498, 1830—Mexico (type in Leiden Museum).

*Turdus erythrophthalmus* Lichtenstein, Preis-Verz. Mex. Vög., p. 2, 1830—Mexico (type in Berlin Museum).

*Melanotis caerulescens* Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 28, 1879—part, Oaxaca and Vera Cruz localities and references; Ridgway, Bull. U. S. Nat. Mus., 50, Part 4, p. 210, 1907—part, southern Mexico (monog., full bibliog.).

*Range*.—Eastern and south-central Mexico, in states of Vera Cruz, Oaxaca, Puebla, Morelos, and Mexico.

6: Vera Cruz (Jalapa, 3; Orizaba, 1); Mexico (Mexico City, 1); Morelos (Cuernavaca, 1).

#### \**Melanotis caerulescens effuticius* Bangs and Penard.<sup>1</sup> CHIHUAHUA BLUE MOCKINGBIRD.

*Melanotis caerulescens effuticius* Bangs and Penard, Proc. Biol. Soc. Wash., 34, p. 91, 1921—Hacienda de San Rafael, Chihuahua, Mexico (type in Museum of Comparative Zoology, Cambridge, Mass.); van Rossem, Trans. San Diego Soc. N. H., 6, p. 274, 1931—Chinobampo, Sonora.

*Melanotis caerulescens* Ridgway, Bull. U. S. Nat. Mus., 50, Part 4, p. 210, 1907—part, western Mexico (monog., full bibliog.).

*Range*.—Mexico, in states of Chihuahua, Sonora, Durango, Sinaloa, Jalisco, Nayarit, Colima, Guerrero, and Michoacan.<sup>2</sup>

9: Jalisco (Tuxpan, 8); Nayarit (San Blas, 1).

#### *Melanotis caerulescens longirostris* Nelson.<sup>3</sup> TRES MARIAS BLUE MOCKINGBIRD.

<sup>1</sup> *Melanotis caerulescens effuticius* Bangs and Penard: Differs from the typical race by paler coloration, particularly of the under parts.

<sup>2</sup> The status of birds from Guerrero, Michoacan, and Colima is doubtful, no specimens from these states being available at present.

<sup>3</sup> *Melanotis caerulescens longirostris* Nelson: Similar to *M. c. effuticius*, but smaller and bill much larger.

*Melanotis caerulescens longirostris* Nelson, Proc. Biol. Soc. Wash., 12, p. 10, 1898—Maria Madre Island, Tres Marias group (type in U. S. National Museum); idem, North Amer. Fauna, 14, p. 59, 1899—Maria Madre Island (habits; song; crit.); McLellan, Proc. Calif. Acad. Sci., (4), 15, p. 313, 1926—Maria Madre and Maria Magdalena, Tres Marias group; idem, l.c., (4), 16, p. 40, 1927—Maria Madre, Tres Marias group.

*Melanotis longirostris* Ridgway, Bull. U. S. Nat. Mus., 50, Part 4, p. 212, 1907 (monog., full bibliog.).

*Melanotis caerulescens* (not *Orpheus caerulescens* Swainson) Grayson, Proc. Bost. Soc. N. H., 14, p. 275, 1875—Tres Marias Islands.

*Range*.—Tres Marias Islands, western Mexico.

**\**Melanotis caerulescens hypoleucus* Hartlaub.<sup>1</sup> WHITE-BREASTED BLUE MOCKINGBIRD.**

*Melanotis hypoleucus* Hartlaub, Rev. Mag. Zool., (2), 4, p. 460, 1852—Guatemala (type in Hamburg Museum<sup>2</sup>); Sclater and Salvin, Exot. Orn., p. 85, pl. 43, 1868—Guatemala; Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 29, 1879—Guatemala; Ridgway, Bull. U. S. Nat. Mus., 50, Part 4, p. 212, 1907 (monog., full bibliog.); Dearborn, Field Mus. Nat. Hist., Orn. Ser., 1, p. 132, 1907—Tecpam and Lake Atitlan, Guatemala; Griscom, Bull. Amer. Mus. N. H., 64, p. 302, 1932—Nebaj, Tecpam, San Lucas, Panajachel, and Antigua, Guatemala.

*Range*.—Highlands of Guatemala and northern Honduras.<sup>3</sup>

9: Guatemala (Tecpam, 6; Lake Atitlan, 1; Vera Paz, 2).

**Genus MELANOPTILA Sclater**

*Melanoptila* Sclater, Proc. Zool. Soc. Lond., 25, "1857," p. 275, pub. Jan., 1858—type, by monotypy, *Melanoptila glabrirostris* Sclater.

**\**Melanoptila glabrirostris* Sclater. BLACK CATBIRD.**

*Melanoptila glabrirostris* Sclater, Proc. Zool. Soc. Lond., 25, "1857," p. 275, pub. Jan., 1858—Omoa, Honduras (type now in British Museum); Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 27, pl. 3, fig. 2, 1879 (monog.); Ridgway, Bull. U. S. Nat. Mus., 50, Part 4, p. 214, 1907 (monog., full bibliog.); Griscom, Amer. Mus. Nov., 235, p. 15, 1926—Ascension Bay, Yucatan; idem, l.c., 236, p. 11, 1926—Cozumel Island (habits).

<sup>1</sup> *Melanotis caerulescens hypoleucus* Hartlaub: Very distinct from the other races of the genus by its white under parts. Nevertheless, I consider this bird subspecifically related to *M. caerulescens*, since partly white ventral plumage shows itself in aberrant specimens of *M. c. longirostris* of the Tres Marias (cf. Nelson, North Amer. Fauna, 14, p. 59, 1899).

<sup>2</sup> Bolau (Mitt. Naturh. Mus. Hamburg, 15, pp. 45–71, 1898), however, does not list it among the types preserved in that institution.

<sup>3</sup> There are two specimens in the Berlepsch Collection in Frankfort from the Volcan de Puca, Honduras.

*Range*.—Cozumel Island, coast district of Yucatan, south through British Honduras to northern coast of Honduras.

5: Yucatan (Cozumel Island, 4; Peto, 1).

### Genus MIMODES Ridgway

*Mimodes* Ridgway, Proc. U. S. Nat. Mus., 5, p. 45, 1882—type, by monotypy, *Harporhynchus graysoni* Lawrence.

### *Mimodes graysoni* (Lawrence). SOCORRO THRASHER.

*Harporhynchus graysoni* Lawrence, Ann. Lyc. Nat. Hist. N. Y., 10, p. 1, 1871—Socorro Island, Revillagigedo group (type in U. S. National Museum); Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 33, 1879—Socorro Island.

*Mimodes graysoni* Ridgway, Bull. U. S. Nat. Mus., 50, Part 4, p. 216, 1907 (monog., full bibliog.); McLellan, Proc. Calif. Acad. Sci., (4), 15, p. 313, 1926—Socorro Island.

*Range*.—Socorro Island, Revillagigedo group, northwestern Mexico.

### Genus DUMETELLA S. D. W.

*Dumetella* S. D. W., Analyst, 5, p. 206, 1837—type, by monotypy, *Turdus felivox* Vieillot=*Muscicapa carolinensis* Linnaeus.

*Spodesilaura* Reichenbach, Av. Syst. Nat., 1850, pl. 53—type, by monotypy, *Muscicapa carolinensis* Linnaeus.

*Galeoscoptes* Cabanis, Mus. Hein., 1, p. 82, 1851—type, by monotypy, *Muscicapa carolinensis* Linnaeus.

*Felivox* Bonaparte, Compt. Rend. Acad. Sci., Paris, 38, p. 56, 1854—type, by monotypy, *Muscicapa carolinensis* Linnaeus.

*Lucar* Coues, Proc. Acad. Nat. Sci. Phila., 1875, p. 349—type, by monotypy, *Muscicapa carolinensis* Linnaeus.

### \**Dumetella carolinensis* (Linnaeus). CATBIRD.

*Muscicapa carolinensis* Linnaeus, Syst. Nat., 12th ed., 1, p. 328, 1766—based mainly on "The Cat Bird" Catesby, Nat. Hist. Carolina, 1, p. 66, pl. 66; "Carolina"=Virginia.

*Turdus lividus* Wilson, Amer. Orn., 2, p. 90, pl. 14, fig. 3, 1810—eastern Pennsylvania (type, No. 6770, Peale's Museum).

*Turdus felivox* Vieillot, Hist. Nat. Ois. Amér. Sept., 2, p. 10, pl. 67, "1807"—new name for *Muscicapa carolinensis* Linnaeus.

*Minus* [sic] *carolinensis grisifrons* Maynard, Birds E. N. Amer., Part 40, p. 710, 1896—type from Florida Keys, Florida, in Museum of Comparative Zoology, Cambridge, Mass.; cf. Bangs, Bull. Mus. Comp. Zool., 70, p. 323, 1930.

*Galeoscoptes bermudianus* Bangs and Bradlee, Auk, 18, p. 253, 1901—Hamilton, Bermuda (type in Museum of Comparative Zoology, Cambridge, Mass.); Bangs, Bull. Mus. Comp. Zool., 70, p. 323, 1930 (crit.).

*Galeoscoptes carolinensis* Ridgway, Bull. U. S. Nat. Mus., 50, Part 4, p. 218, 1907 (monog., full bibliog.); Dearborn, Field Mus. Nat. Hist., Orn. Ser., 1, p. 132, 1907—Los Amates, Guatemala.

*Dumetella carolinensis* Carriker, Ann. Carnegie Mus., 6, p. 736, 1910—Guácimo, Costa Rica; Phillips, Auk, 28, p. 80, 1911—Altamira, Tamaulipas; Peters, Auk, 30, p. 376, 1913—Xcopen, Quintana Roo; Stone, Proc. Acad. Nat. Sci. Phila., 70, p. 272, 1918—Panama; Bangs and Peters, Bull. Mus. Comp. Zool., 67, p. 482, 1927—Presidio, Vera Cruz; Peters, l.c., 69, p. 459, 1929—Lancetilla and Progreso, Honduras; idem, l.c., 71, p. 332, 1931—Changuinola, Almirante, western Panama.

*Range*.—Breeds mainly in Transition and Austral zones from central British Columbia and southern Alberta to Nova Scotia, south to western Washington, northeastern Oregon, northern Utah, northeastern New Mexico, southeastern Texas, central Alabama, Georgia, and northern Florida; resident in Bermuda; winters from the southern states to the Bahamas and Cuba and through Mexico to Panama; casual in winter north to the central states; accidental on the Farallon Islands and in Europe.

195: Saskatchewan (Prince Albert, 1); Massachusetts (Taunton, 1; Natick, 1; Hyde Park, 1; unspecified, 4); Connecticut (East Hartford, 2); Florida (Wilson, 2; Lantana, 1; Palm Beach, 5; Nassau County, 2; Miami, 1; Lake Worth, 1; Santa Rosa Island, 1); Mississippi (Vicksburg, 1; Holly Springs, 3); Ohio (Columbus, 1); Illinois (Chicago, 5; Deerfield, 1; Wolf Lake, 2; Lake Forest, 3; Grand Chain, 1; Auburn Park, 1); Indiana (Roby, 1); Tennessee (Humboldt, 1); Texas (Fort Worth, 1); Wisconsin (Beaver Dam, 10); Colorado (Fort Lyon, 4); Bahama Islands (Great Bahama, 89; New Providence, 3; Eleuthera, 8; Andros, 1; Berry, 2; Bimini, 1; Abaco, 5); Cuba, 2; Grand Cayman, 7; Cayman Brac, 2; St. Andrews, 1; Anguilla, 1; Mexico (Vera Cruz, 3; Tabasco, 3; City of Mexico, 1; Cozumel Island, 1); Guatemala (Los Amates, 2); Nicaragua (San Rafael del Norte, 1; San Emilio, 1); Costa Rica (Limón, 3).

### Genus MIMUS Boie

*Mimus* Boie, Isis, 1826, p. 972—type, by virtual monotypy, *Turdus polyglottos* Linnaeus.

*Orpheus* Swainson, Zool. Journ., 3, p. 167, 1828—type, by orig. design., *Turdus polyglottos* Linnaeus.

*Mimetes* Gloger, Hand- und Hilfsbuch Naturg., 1, p. 303, 1841—new name for *Mimus* Boie.

*Leucomimus* Bryant, Proc. Bost. Soc. N. H., 11, p. 68, 1866—type, by monotypy, *Turdus dominicus* Linnaeus.

*Skotiomimus* Bryant, Proc. Bost. Soc. N. H., 11, p. 68, 1866—type, by monotypy, *Mimus bahamensis* Bryant.



**\*Mimus polyglottos polyglottos (Linnaeus). MOCKINGBIRD.**

*Turdus polyglottos* Linnaeus, Syst. Nat., 10th ed., 1, p. 169, 1758—based on "Mockingbird" Kalm, Resa Norra Amer., 2, p. 335, and "The Mockingbird" Catesby, Nat. Hist. Carolina, 1, p. 27, pl. 27; Virginia (excl. ref. Sloane).

*Turdus polyglottus* Wilson, Amer. Orn., 2, p. 13, pl. 10, fig. 1, 1810—part, North America; Audubon, Orn. Biog., 1, p. 108, pl. 21, 1831—North America (habits).

*Mimus polyglottus* Sharpe, Cat. Bds. Brit. Mus., 6, p. 338, 1881—North America (part).

*Mimus polyglottos polyglottos* Ridgway, Bull. U. S. Nat. Mus., 50, Part 4, p. 225, 1907—part, eastern United States (excl. Bahaman localities and references; monog., full bibliog.).

**Range.**—Eastern United States, from eastern Nebraska, southern Iowa, Illinois, Indiana, Ohio, and Maryland south to eastern Texas and southern Florida,<sup>1</sup> sparingly to New York and Massachusetts. Accidental in Wisconsin, Ontario, Maine, and Nova Scotia. Introduced in Bermuda.

43: Massachusetts (Great Island, near Hyannis, 1); Illinois (Mound City, 1; Joliet, 1); Mississippi (Vicksburg, 1); Arkansas (Stuttgart, 1); Louisiana (Buras, 7; Chef Menteur, 2); Florida (Starke, 1; Santa Rosa Island, 5; Town Point, Santa Rosa County, 3; Banana River, 2; Mary Esther, 3; Enterprise, 2; Lake Worth, 1; Pilot Town, 1; Palm Beach, 2; Miami, 2; Nassau County, 2; Jupiter, 2; Key West, 2); Texas (Austin, 1).

**\*Mimus polyglottos leucopterus (Vigors). WESTERN MOCKINGBIRD.**

*Orpheus leucopterus* Vigors, Zool. Voy. "Blossom," p. 17, 1839—no locality indicated, probably Monterey, California (type apparently lost).

*Mimus canadatus* (corrected to *caudatus* on p. "XXXXV"=XXXV) Baird, Rep. Expl. Surv. R. R. Mississippi R. to Pacific, 9, p. 345 (in text), 1858—Los Angeles Valley, California (type in U. S. National Museum).

*Mimus polyglottos leucopterus* Mearns, Auk, 19, p. 70, 1902—southwestern United States, from the Gulf of Mexico (Texas) to the Pacific coast, and southwards into Mexico, including all of Lower California (crit.); Ridgway, Bull. U. S. Nat. Mus., 50, Part 4, p. 228, 1907—southwestern United States and Mexico (monog., full bibliog.); Phillips, Auk, 28, p. 80, 1911—Matamoros, Tamaulipas; Townsend, Bull. Amer. Mus. N. H., 48, p. 23, 1923—Cerro Island, Magdalena Bay, Cape San Lucas, La Paz, and Agua Verde Bay, Lower California; Griscom and Crosby, Auk, 43, p. 31, 1926—Brownsville, Texas; McLellan, Proc. Calif. Acad. Sci., (4), 15, p. 313, 1926—Isabel Island; idem, l.c., (4), 16, pp. 40, 192, 1927—San Blas

<sup>1</sup> Certain individuals from southern Florida closely approach the Bahaman race.

(Nayarit) and Maria Madre, Tres Marias; Bangs and Peters, Bull. Mus. Comp. Zool., 68, p. 399, 1928—Chivelá, Oaxaca; Grinnell, Univ. Calif. Pub. Zool., 32, p. 208, 1928—Lower California.

*Mimus polyglottus* (not *Turdus polyglottos* Linnaeus) Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 35, 1879—part, Mexico (monog.); Sharpe, Cat. Bds. Brit. Mus., 6, p. 338, 1881—part, Mexico.

**Range.**—Southwestern United States, from Texas to the Pacific coast, north to central California, southern Wyoming, northwestern Nebraska, and western Kansas, south to Cape San Lucas, Lower California, and throughout Mexico as far south as Jalisco, Oaxaca, and Vera Cruz, including the Tres Marias and Santa Barbara islands. Accidental on Guadalupe Island.

65: Texas (Corpus Christi, 13; Laredo, 7; Fort Worth, 5; Geddings, 1; Waring, 1; Harlingen, 1; Ingram, 1); Arizona (Calabasas, 16; Phoenix, 1; Fort Grant, 1; Huachuca Plains, 3; Huachuca Mountains, 1); California (Pomona, Los Angeles County, 1; San Clemente Island, 1); Colorado (Fort Lyon, 4); Mexico (Jalisco, Coahuila, 2; Tamaulipas, 1; Tampico, Tamaulipas, 4; Tuxpan, Jalisco, 1).

**\**Mimus polyglottos elegans* Sharpe. BAHAMAN MOCKINGBIRD.**

*Mimus elegans* Sharpe, Cat. Bds. Brit. Mus., 6, p. 339, 1881—Inagua Island, Bahamas (type in British Museum); Cory, Auk, 3, p. 20, 1886—Inagua Island (monog.); idem, Bds. W. Ind., p. 34, 1889—Inagua (monog.).

*Mimus polyglottos delenificus* Bangs, Proc. New Engl. Zool. Cl., 6, p. 23, 1916—Mastic Point, Andros Island, Bahamas (type in Museum of Comparative Zoology, Cambridge, Mass.).

*Mimus polyglottos orpheus* (not *Turdus orpheus* Linnaeus) Cory, Auk, 8, p. 45, 1891—part, Andros, Abaco, and Inagua, Bahamas (crit.); idem, l.c., 8, pp. 295, 296, 298, 350, 1891—Berry Islands, Bimini Islands, Abaco, and Great Bahama; idem, l.c., 9, p. 48, 1892—Maraguana Island; Riley, in Shattuck, The Bahama Islands, p. 364, 1905—Bahama Islands; Todd and Worthington, Ann. Carnegie Mus., 7, pp. 425, 456, 1911—Great Inagua.

*Mimus polyglottos elegans* Cory, Auk, 8, pp. 298, 351, 1891—Inagua (crit.); Ridgway, l.c., 8, p. 333, 1891—Abaco (crit.); idem, Bull. U. S. Nat. Mus., 50, Part 4, p. 231, 1907—Inagua (monog.); Bangs, Bull. Mus. Comp. Zool., 67, p. 205, 1925—Inagua.

*Mimus polyglottus* (var. *bahamensis* ?) Bryant, Proc. Bost. Soc. N. H., 11, p. 68, 1867—Bahamas (nomen nudum).

*Mimus polyglottus* (os) (not *Turdus polyglottos* Linnaeus) Bonhote, Ibis, 1899, p. 507—New Providence (crit.); idem, Ibis, 1903, p. 276—Little Abaco and Great Abaco (crit., nest and eggs); G. Allen, Auk, 22, p. 132, 1905—Elbow Cay, Bahamas (crit.).

*Mimus polyglottos polyglottos* Ridgway, Bull. U. S. Nat. Mus., 50, Part 4, p. 225, 1907—part, Bahaman references and localities; Todd and Worthing-

ton, Ann. Carnegie Mus., 7, pp. 425, 456, 1911—Long Island, Andros, and Abaco.

*Range*.—Bahama Islands (Great Bahama, Little Abaco, Green Turtle Cay, Elbow Cay, Great Abaco, Berry Islands, Bimini Islands, Andros, New Providence, Conception, Long Island, Maraguana, and Great Inagua).<sup>1</sup>

135: Bahamas (Great Bahama, 38; Abaco, 6; Berry Islands, 2; Bimini Islands, 1; Great Inagua, 88).

**\**Mimus polyglottos orpheus* (Linnaeus). JAMAICAN  
MOCKINGBIRD.**

*Turdus orpheus* Linnaeus, Syst. Nat., 10th ed., 1, p. 169, 1758—based on Brown, Jam., p. 469, and "The Lesser Mockbird" Edwards, Nat. Hist. Bds., 2, p. 78, pl. 78; Jamaica.

*Turdus dominicus* Linnaeus, Syst. Nat., 12th ed., 1, p. 295, 1766—based on "Le Merle de Saint-Domingue" Brisson, Orn., 2, p. 284, pl. 27, fig. 1; Santo Domingo.<sup>2</sup>

*Turdus merle* P. L. S. Müller, Natursyst., Suppl., p. 139, 1776—based on Daubenton, Pl. Enl., pl. 558, fig. 1; Santo Domingo.

*Mimus orpheus* Sclater, Proc. Zool. Soc. Lond., 27, p. 341, 1859—Jamaica (monog.); Baird, Rev. Amer. Bds., 1, p. 50, 1864—Spanishtown, Jamaica (monog.); Sharpe, Cat. Bds. Brit. Mus., 6, p. 340, 1881—part, Porto Rico and Jamaica; Cory, Auk, 3, p. 19, 1886—Jamaica (monog.); idem, Bds. W. Ind., p. 33, 1889—Jamaica and Grand Cayman (monog.); Scott, Auk, 10, p. 341, 1893—Priestman's River, Jamaica; Fielden, Auk, 11, p. 127, 1894—Port Henderson, Jamaica; Nicoll, Ibis, 1904, p. 579—

<sup>1</sup> Cory, Ridgway, and Todd restricted the range of *M. p. elegans* to Great Inagua, referring the Mockingbird of the northern Bahamas to *M. p. polyglottos*, whereas Riley attributed the inhabitants of the whole group to a single form which he calls *M. p. orpheus*. The large series in Field Museum plainly shows that the Bahaman birds are easily told from typical *polyglottos* by their much whiter under parts with very little, if any, grayish suffusion on the chest, as has been correctly pointed out by Bangs. I am, however, unable to split them into two races, since the lesser amount of white on the third rectrix, which served as the principal character for the discrimination of *M. p. delenificus* (from Andros Island), proves to be exceedingly variable. Birds from Inagua (*elegans*), I admit, frequently have the inner web of this tail feather wholly (or very nearly so) white, and specimens with as much white are evidently rare on the northern islands (only four out of thirty-two from Great Bahama). Thirty-five of our skins from Inagua, however, show more or less black, and do not differ in tail markings from northern birds; some have even but a small whitish apical spot, resembling Abaco and Great Bahaman examples with the least amount of white on the third rectrix. The undeniable tendency of the white to increase in specimens ranging from north to south is thus completely bridged by individual variation, and the distinction rests solely upon the different percentages of extremely white-tailed specimens in the population of the various islands. I fail to see any constant difference in the extent of white at the base of the primaries, while the slightly smaller size of the Inagua birds, which holds only in about one-third of the specimens examined, is too insignificant to justify their retention as a separate race.

<sup>2</sup> Linnaeus's statement, "habitat in Dominica," is evidently a pen-slip, his diagnosis being exclusively based on Brisson's account.

Grand Cayman (crit.); Lowe, Ibis, 1911, p. 153—Grand Cayman, "probably Little Cayman and Cayman Brac."

*Mimus dominicus* Selater, Proc. Zool. Soc. Lond., 27, p. 341, 1859—Santo Domingo (crit.); Cory, Bds. Haiti and San Domingo, p. 21, 1885—Haiti (monog.); idem, Auk, 3, p. 20, 1886—Haiti and Santo Domingo (monog.); idem, Bds. W. Ind., p. 34, 1889—Island of Haiti (monog.); Cherrie, Field Columb. Mus., Orn. Ser., 1, p. 10, 1896—Santo Domingo (habits); Verrill and Verrill, Proc. Acad. Nat. Sci. Phila., 61, p. 366, 1909—Santo Domingo.

*Mimus polyglottos* (not *Turdus polyglottos* Linnaeus) Chapman, Bull. Amer. Mus. N. H., 4, p. 312, 1892—Trinidad, Cuba.

*Mimus polyglottos portoricensis* (ex Bryant)<sup>1</sup> Cory, Auk, 8, p. 46, 1891—Porto Rico (diag.).

*Mimus polyglottos orpheus* Cory, Auk, 8, p. 45, 1891—part, Jamaica, Cuba, Santo Domingo, and Grand Cayman; Clark, Proc. Bost. Soc. N. H., 32, p. 299, 1905—Barbados (introduced); Ridgway, Bull. U. S. Nat. Mus., 50, Part 4, p. 231, 1907—Cuba, Grand Cayman, Jamaica, and Porto Rico (monog., full bibliog.); Lowe, Ibis, 1909, p. 343—Grand Cayman; Todd, Ann. Carnegie Mus., 10, p. 251, 1916—Nueva Gerona and Santa Barbara, Isle of Pines (crit.);<sup>2</sup> Bangs, Bull. Mus. Comp. Zool., 60, p. 313, 1916—Grand Cayman; Wetmore, Auk, 33, p. 416, 1916—Vieques Island; idem, Auk, 34, pp. 55, 61, 1917—Culebrita and Culebra Islands; Peters, Bull. Mus. Comp. Zool., 61, p. 415, 1917—Monte Cristi, Sosúa, and Choco, Santo Domingo (crit.); Griscom, Auk, 38, p. 461, 1921—St. Thomas; Struthers, Auk, 40, p. 476, 1923—Porto Rico; Barbour, Mem. Nutt. Orn. Cl., 6, p. 101, 1923—Cuba; Danforth, Journ. Dept. Agric. Porto Rico, 10, p. 123, 1926—Cartagena Lagoon, Porto Rico; Wetmore, N. Y. Acad. Sci., Sci. Surv. Porto Rico and Virgin Islands, 9, p. 483, 1927—Porto Rico, Vieques, Culebra, Culebrita, St. Thomas (habits); Danforth, Auk, 45, p. 488, 1928—Jamaica; idem, Journ. Dept. Agric. Porto Rico, 14, p. 125, 1930—Virgin Islands; Beaty, l.c., p. 147, 1930—St. Croix (nest and eggs); Fisher and Wetmore, Proc. U. S. Nat. Mus., 79, art. 10, p. 15, 1931—Grand Cayman.

*Mimus polyglottos dominicus* Ridgway, Bull. U. S. Nat. Mus., 50, Part 4, p. 233, 1907—Island of Haiti (monog., full bibliog.); Bond, Proc. Acad. Nat. Sci. Phila., 80, p. 508, 1928—Haiti; Moltoni, Atti Soc. Ital. Sci. Nat., 68, p. 321, 1929—Moca, Haiti; Wetmore and Swales, Bull. U. S. Nat. Mus., 155, p. 381, 1931—Haiti (habits).

*Range*.—Islands of Cuba (including Isle of Pines), Grand Cayman,<sup>3</sup> Jamaica, Haiti, and Porto Rico, and the Virgin Islands

<sup>1</sup> The names *cubanensis* and *portoricensis*, as proposed by Bryant (Proc. Bost. Soc. N. H., 11, p. 68, April, 1867) are pure nomina nuda.

<sup>2</sup> I cannot help thinking that the December specimen referred by Todd (l.c., p. 251) to *M. p. polyglottos* is merely a variant of the resident form and not a migrant from continental America.

<sup>3</sup> No mockingbird occurs on either Little Cayman or Cayman Brac. Ridgway (Bull. U. S. Nat. Mus., 50, Part 4, p. 227) quotes Nicoll (Ibis, 1904, p. 590) as authority for the occurrence of *Mimus polyglottos* on Little Cayman, but Nicoll records it from Charlotte Harbor, Florida.

(Culebra, Vieques, St. Croix, St. Thomas, St. John, Tortola, Salt Island, and Virgin Gorda),<sup>1</sup> Greater Antilles;<sup>2</sup> introduced in Barbados, Lesser Antilles.

281: Cuba (Trinidad, Prov. Santa Clara, 1; unspecified, 1); Grand Cayman, 123; Jamaica (Priestman's River, 18; Port Antonio, 2); Haiti (St. Marc, 1; Le Coup, 2; near Jacmel, 5; Kenscoff, 4); Santo Domingo (Aguacate, 3; San Cristobal, 7; Catare, 16; Honduras, 19; Santo Domingo, 31; Maniel, 28); Porto Rico (Mayaguez, 13; unspecified, 7).

**\**Mimus gundlachii gundlachii* Cabanis. GUNDLACH'S  
MOCKINGBIRD.**

*Mimus gundlachii* Cabanis, Journ. Orn., 3, p. 470, 1855—"Cuba"=Cayo, Santa María, north coast of Cuba (type in the Gundlach Museum, Havana; see Gundlach, Journ. Orn., 20, p. 409, 1872, and Contrib. Orn. Cuba, p. 61, 1876); Sclater, Proc. Zool. Soc. Lond., 27, p. 342, 1859—Cuba (monog.); Cory, Auk, 3, p. 21, 1886—Bahamas and Cuba (crit.); idem, Bds. W. Ind., p. 35, 1889—Bahamas and Cuba (monog.); Bonhote, Ibis, 1903, p. 276—New Province, Andros, Hog Cay (off Great Abaco), and Little Abaco; G. Allen, Auk, 22, p. 131, 1905—Moraine Cay, Stranger Cay, and Great Sale Cay; Riley, in Shattuck, The Bahama Islands, p. 364, 1905—Rum Cay, Watlings Island, Long Island, Exuma Cays, Conception Island, Mariguana, North Caicos, Grand Caicos, East Caicos, Great Inagua.

*Mimus bahamensis* Bryant, Proc. Bost. Soc. N. H., 7, p. 114, Sept., 1859—Bahama Islands (type from Bahama Key in U. S. National Museum; cf. Baird, Rev. Amer. Bds., 1, p. 52, 1864).

*Mimus gundlachii gundlachii* Ridgway, Bull. U. S. Nat. Mus., 50, Part 4, p. 241, 1907—cays along north coast of Cuba and southern Bahama Islands (monog., full bibliog.); Todd and Worthington, Ann. Carnegie Mus., 7, pp. 426, 457, 1911—New Providence, Great Inagua, and Andros (crit.); Barbour, Mem. Nutt. Orn. Cl., 6, p. 101, 1923—cays of the northern coast of Cuba, opposite Caibarien and San Juan de los Perros.

*Mimus gundlachii bahamensis* Riley, in Shattuck, The Bahama Islands, p. 364, 1905—Berry Islands, Eleuthera, Hog Island, New Providence, Andros, Ship Channel Cays, Green Cay, Cat Island, Highborn Cay; Ridgway, Bull. U. S. Nat. Mus., 50, Part 4, p. 243, 1907—northern and middle Bahama Islands (monog., full bibliog.); Bangs, Bull. Mus. Comp. Zool., 67, p. 205, 1925—Berry Islands (crit.).

**Range.**—Cays along northern coast of Cuba (opposite Caibarien and San Juan de los Perros) and Bahama Islands, from Stranger

<sup>1</sup> On the Virgin Islands this mockingbird has become settled only during the last fifteen years. Taken in St. Thomas for the first time in 1916, it has since spread over a number of other islands.

<sup>2</sup> As pointed out by Peters (Bull. Mus. Comp. Zool., 61, p. 416), birds from Haiti (*dominicus*) are nowise different from those of Jamaica, Cuba, and Porto Rico.

Cay and Great Sale Cay south to Great Inagua and the Caicos Islands (not recorded from Great Bahamas, Great Abaco, Acklin, and various smaller islands).<sup>1</sup>

297: Bahamas (Berry Islands, 1; Nassau, New Providence, 4; Highborn Cay, 4; Andros, 9; Eleuthera, 42; Watlings Island, 10; Bird Rock, Acklin, 1; Mariguana, 27; Great Inagua, 149; Caicos, 50).

**\**Mimus gundlachii hillii* March. HILL'S MOCKINGBIRD.**

*Mimus hillii* March, Proc. Acad. Nat. Sci. Phila., 1863, pp. 291, 305—based on *Mimus orpheus* (not *Turdus orpheus* Linnaeus) Hill, Proc. Acad. Nat. Sci. Phila., p. 304, 1863, Jamaica; Baird, Rev. Amer. Bds., 1, p. 52, 1864—Port Henderson and Great Salt Pond, Jamaica (monog.); Sharpe, Cat. Bds. Brit. Mus., 6, p. 343, 1881—Jamaica (monog.); Cory, Auk, 3, p. 22, 1886—Jamaica (monog.); idem, Bd. W. Ind., p. 36, 1889—Jamaica (monog.); Scott, Auk, 10, p. 341, 1893—Port Henderson, Jamaica; Field, Auk, 11, p. 127, 1894—Port Henderson, Jamaica (habits, eggs).

*Mimus gundlachii hillii* Ridgway, Bull. U. S. Nat. Mus., 50, Part 4, p. 244, 1907—Jamaica (monog., full bibliog.); Bangs and Kennard, Handbook Jam. for 1920, [Sep., p. 13], 1920—Healthshire Hills, southern Jamaica.

*Range*.—Island of Jamaica, Greater Antilles.

2: Jamaica (Spanishtown, 1; unspecified, 1).

**\**Mimus gilvus antelius* Oberholser.<sup>2</sup> BLUE-GRAY MOCKINGBIRD.**

*Turdus lividus* (not of Wilson, 1810) Lichtenstein, Verz. Doubl. Berliner Mus., p. 39, 1823—Bahia (type in Berlin Museum).

*Turdus cinereus* (not of Gmelin, 1789) Voigt, Cuvier's Thierreich, 1, p. 483, 1831—new name for *Turdus lividus* Lichtenstein.

*Mimus antelius* Oberholser, Proc. Biol. Soc. Wash., 32, p. 128, 1919—new name for *Turdus lividus* Lichtenstein, preoccupied.

*Mimus plumbeus* Collin and Hartert, Nov. Zool., 34, p. 52, 1927—new name for *Turdus lividus* Lichtenstein, preoccupied.

*Turdus orpheus* (not of Linnaeus) Wied, Reise Bras., 1, p. 106, [8vo ed., p. 105], 1820—Paulista, near Lagôa Feia, Prov. Rio de Janeiro; Spix, Av. Bras., 1, p. 71, pl. 71, fig. 2, 1824—part, Rio de Janeiro (cf. Hellmayr, Abhandl. Bayr. Akad. Wiss., 2. Kl., 22, No. 3, p. 619, 1906).

<sup>1</sup> The splendid series in Field Museum shows conclusively that no difference exists between specimens from the extreme northern and others from the southern Bahama Islands, and, as has already been intimated by Todd, there is no justification in recognizing an alleged northern race (*bahamensis*). The coloration of the upper parts, regardless of locality, is exceedingly variable, and dimensions do not offer any tangible criterion for racial distinction either.

<sup>2</sup> *Mimus gilvus antelius* Oberholser is closely allied to *M. g. gilvus*, but may be distinguished by its much longer tail (123–135 mm.) with shorter white tips, its paler grayish upper parts, and by having the flanks much more heavily streaked with blackish brown.

*Material examined*.—Rio de Janeiro, 2; Bahia, 2; Miritiba, Maranhão, 1; Mangunça Island, Maranhão, 2; Cajútuba, Pará, 2.

*Mimus lividus* Wied, Beitr. Naturg. Bras., 3, (2), p. 653, 1831—dunes of the Brazilian coast; Burmeister, Syst. Uebers. Th. Bras., 3, p. 128, 1856—seashore of Brazil; Sclater, Proc. Zool. Soc. Lond., 27, p. 342, 1859—southeastern Brazil (monog.); idem, Cat. Coll. Amer. Bds., p. 9, 1862—Brazil; Pelzeln, Orn. Bras., 2, p. 95, 1868—Illa do Marambaya (Rio de Janeiro) and Cajútuba (Pará); Sharpe, Cat. Bds. Brit. Mus., 6, p. 346, 1881—Brazil; Ihering, Journ. Orn., 46, p. 9, 1898 (range; not south of Rio de Janeiro); idem, Rev. Mus. Paul., 3, p. 128, 1899—"Ilha do Mar, near Iguapé, São Paulo"; idem, l.c., 6, p. 346, 1905 (occurrence in São Paulo doubtful); idem, Cat. Faun. Braz., 1, p. 326, 1907—Pará to Rio de Janeiro; Hellmayr, Abhandl. Math.-Phys. Kl. Bayr. Akad. Wiss., 26, No. 2, p. 86, 1912—Cajútuba, Pará; Lima, Rev. Mus. Paul., 12, (2), p. 100, 1920—southern Bahia; Snethlage, Bol. Mus. Nac. Rio de Janeiro, 2, No. 6, p. 40, 1926—Ceará.

*Milvus gilvus antelius* Hellmayr, Field Mus. Nat. Hist., Zool. Ser., 12, p. 250, 1929—Mangunça Island and Miritiba, Maranhão (crit.).

**Range.**—Littoral of eastern Brazil, from Rio de Janeiro (Lagôa Feia; Marambaia Island) north to Pará (Cajútuba).

2: Brazil (Mangunça Island, Maranhão, 2).

### ***Mimus gilvus gilvus* (Vieillot).<sup>1</sup> GRACEFUL MOCKINGBIRD.**

*Turdus gilvus* Vieillot, Hist. Nat. Ois. Amér. Sept., 2, p. 15, pl. 68 bis, "1807"—"la Guiane et les contrées les plus chaudes de l'Amérique septentrionale" (type in coll. of P. L. Vieillot); idem, Nouv. Dict. Hist. Nat., nouv. éd., 20, p. 296, 1818—"dans la Guyane" (we suggest French Guiana as type locality).

*Mimus lividus* (not of Lichtenstein) Bonaparte, Bull. Soc. Linn. Normandie, 2, p. 31, 1857—Cayenne.

*Mimus gilvus* Pelzeln, Orn. Bras., 2, p. 95, 1868—part, Cayenne; Sharpe, Cat. Bds. Brit. Mus., 6, p. 350, 1881—part, Guiana; Ihering and Ihering, Cat. Faun. Braz., 1, p. 328, 1907—part, Surinam; Berlepsch, Nov. Zool., 15, p. 105, 1908—Cayenne; Penard and Penard, Vog. Guyana, 2, p. 514, 1910—Surinam (habits, eggs).

[*Mimus gilvus*] *a gilvus* Ridgway, Proc. U. S. Nat. Mus., 5, p. 11, 1882—part, Guiana.

*Mimus gilvus gilvus* Ridgway, Bull. U. S. Nat. Mus., 50, Part 4, p. 234, 1907—part, Guiana; Bangs and Penard, Bull. Mus. Comp. Zool., 62, p. 79, 1918—Paramaribo, Dutch Guiana.

**Range.**—French and Dutch Guiana.

<sup>1</sup> *Mimus gilvus gilvus* (Vieillot) is characterized by small size, light mouse-gray upper parts, restricted white tips to the rectrices, and small, well-defined white apical spots to the median and greater wing coverts. Wing, 106–108, (female) 100–106; tail, 108–116; bill, 18–19.

**Material examined.**—French Guiana: Cayenne, 4.—Dutch Guiana: Paramaribo, 7.

**\**Mimus gilvus antillarum* Hellmayr and Seilern.<sup>1</sup> ANTILLEAN MOCKINGBIRD.**

*Mimus gilvus antillarum* Hellmayr and Seilern, Verh. Orn. Ges. Bay., 12, p. 201, 1915—Grenada, Lesser Antilles (type in Tring Museum); Hartert, Nov. Zool., 27, p. 477, 1920—Grenada.

*Mileus gilvus* (not *Turdus gilvus* Vieillot) Schlater, Proc. Zool. Soc. Lond., 1871, p. 268—Santa Lucia (crit.); Semper, l.c., 1872, p. 648—Santa Lucia (habits, song); Lawrence, Proc. U. S. Nat. Mus., 1, pp. 187, 268, 278, 1878—St. Vincent, Grenada, and Grenadines; idem, l.c., 1, p. 486, 1879—St. Vincent and Grenada; Allen, Bull. Nutt. Orn. Cl., 5, p. 166, 1880—Santa Lucia; Sharpe, Cat. Bds. Brit. Mus., 6, p. 350, 1881—part, St. Vincent, Grenada, Santa Lucia; Cory, Ibis, 1886, p. 472—St. Vincent; idem, Auk, 3, p. 20, 1886—St. Vincent, Grenada, Santa Lucia, and (errore) St. Thomas (monog.); idem, Auk, 4, p. 95, 1887—Martinique; idem, Bds. W. Ind., p. 34, 1889—St. Vincent, Grenada, and (errore) St. Thomas (monog.); Wells, Proc. U. S. Nat. Mus., 9, p. 610, 1886—Grenada (habits); idem, Auk, 19, p. 348, 1902—Carriacou; Nicoll, Ibis, 1904, p. 565—Grenada; Clark, Proc. Bost. Soc. N. H., 32, p. 299, 1905—St. Vincent, Grenadines, Grenada, and (introduced) Barbados.

[*Mimus gilvus*] *a gilvus* Ridgway, Proc. U. S. Nat. Mus., 5, p. 11, 1882—part, Grenada, Santa Lucia, St. Vincent, Martinique.

*Mimus gilvus gilvus* Ridgway, Bull. U. S. Nat. Mus., 50, Part 4, p. 234, 1907—part, descr., Lesser Antilles references and localities; Bond, Proc. Acad. Nat. Sci. Phila., 80, p. 535, 1928—Kingstown, St. Vincent, and Gros Islet-Vieux Fort, Santa Lucia.

**Range.**—Lesser Antilles (Nevis,<sup>2</sup> Martinique, Santa Lucia, St. Vincent, Grenadines, Grenada; introduced in Barbados).<sup>3</sup>

18: Martinique, 9; Santa Lucia, 1; St. Vincent, 3; Grenada, 5.

<sup>1</sup> *Mimus gilvus antillarum* Hellmayr and Seilern: Nearest to *M. g. gilvus*, but dorsal surface much darker, mouse-gray instead of light mouse-gray; forehead very little paler than the crown, the latter much less centered with dusky; the white markings to the upper wing coverts wider and less sharply defined, forming apical margins rather than well-circumscribed spots; breast with less, if any, grayish suffusion. Dimensions and small extent of white tips to rectrices as in the typical race. Wing (male), 105–112; tail, 108–117; bill, 18–19½.

It had generally been supposed that this mockingbird might have been introduced into the Lesser Antilles. Comparison of a dozen specimens with an equal number from French and Dutch Guiana, however, revealed several constant differences, and we have accordingly separated the Antillean form. Additional material since examined fully substantiates the distinction. From *M. g. tobagensis* the present race may be distinguished by its much darker upper parts, shorter white tail ends, and smaller bill.

**Material examined.**—Martinique, 9; Santa Lucia, 1; St. Vincent, 10; Bequia, 1; Carriacou, 2; Grenada, 8.

<sup>2</sup> No specimens from Nevis seen.

<sup>3</sup> The reported occurrence of this species on St. Thomas (cf. Ridgway, Proc. U. S. Nat. Mus., 7, p. 172, 1884) appears to be open to doubt. Cf. Griscom, Auk, 38, p. 461, 1921, and Wetmore, N. Y. Acad. Sci., Sci. Surv. Porto Rico and Virgin Is., 9, p. 485, 1927.



**Mimus gilvus tobagensis Dalmas.<sup>1</sup> TOBAGO MOCKINGBIRD.**

*Mimus gilvus tobagensis* Dalmas, Mém. Soc. Zool. France, 13, p. 134, 1900—Tobago (type now in Tring Museum); Hartert, Nov. Zool., 27, p. 477, 1920—Tobago (note on type).

*Mimus gilvus* (not *Turdus gilvus* Vieillot) Jardine, Ann. Mag. Nat. Hist., 20, p. 329, 1847—Tobago; Sharpe, Cat. Bds. Brit. Mus., 6, p. 350, 1881—part, Tobago; Salvin, Cat. Strickl. Coll., p. 12, 1882—part, Tobago; Cory, Auk, 10, p. 220, 1893—Tobago (crit.).

[*Mimus gilvus*] a *gilvus* Ridgway, Proc. U. S. Nat. Mus., 5, p. 11, 1882—part, Tobago.

*Mimus melanopterus* (not of Lawrence) Selater, Proc. Zool. Soc. Lond., 27, p. 342, 1859—part, Tobago.

**Range.**—Islands of Tobago and Trinidad.

19: Tobago.

**\*Mimus gilvus rostratus Ridgway.<sup>2</sup> CURACAO MOCKINGBIRD.**

*Mimus gilvus rostratus* Ridgway, Proc. U. S. Nat. Mus., 7, p. 173, 1884—Curaçao Island (type in U. S. National Museum); Berlepsch, Journ. Orn., 40, p. 74, 1892—Curaçao (crit.); Hartert, Ibis, 1893, pp. 294, 311, 327—Aruba, Curaçao, and Bonaire (crit.); idem, Nov. Zool., 9, p. 296, 1902—Curaçao, Aruba, Bonaire; Ridgway, Bull. U. S. Nat. Mus., 50, Part 4, p. 236, 1907—Curaçao (monog.); Lowe, Ibis, 1909, p. 319—part, Blanquilla Island; Cory, Field Mus. Nat. Hist., Orn. Ser., 1, pp.

<sup>1</sup> *Mimus gilvus tobagensis* Dalmas: Nearest to *M. g. gilvus*, but upper parts decidedly darker, more of a pearl gray; whitish markings to wing coverts wider; white tips to lateral rectrices more extensive; bill stouter, though not constantly longer. Wing, 108–114, (female) 99–105; tail, 119–125, (female) 110–122; bill, 18½–19.

This well-marked race may be distinguished from *M. g. antillarum* by much lighter (pearl gray instead of mouse gray) dorsal surface, much longer white tips to the rectrices, deeper black wings and tail, more grayish breast, and heavier bill; from *M. g. melanopterus* by decidedly smaller size and much darker upper parts.

The Tobago Mockingbird, of very rare occurrence in Trinidad, is supposed to be a recent immigrant. An adult male taken by A. L. Butler on Mount Hope Estate, near Caroni River, on March 1, 1924 (British Museum), is identical with recently collected specimens from Scarborough, Tobago, as far as coloration is concerned, but has a somewhat longer tail (129 mm.).

**Material examined.**—Tobago (Man o' War Bay, Scarborough, etc.): 30.—Trinidad: Mount Hope Estate, 1.

<sup>2</sup> *Mimus gilvus rostratus* Ridgway: Similar to *M. g. melanopterus*, but with larger (heavier), though not always longer bill.

Variation in size of bill is considerable regardless of locality, and small-billed individuals from almost every island can be matched by large-billed specimens from Margarita, Testigos, and the mainland (Rio Hacha, La Goajira). Still, the majority of the birds inhabiting the Dutch West Indies being distinguishable from *M. g. melanopterus*, the race *rostratus* may be retained if its range is restricted to the islands from Tortuga and Blanquilla west. Its characters are most pronounced among birds from Aruba and Bonaire, some of which have remarkably stout, massive bills.

**Additional material examined.**—Curaçao, 5; Aruba, 2; Bonaire, 2.

### 316 FIELD MUSEUM OF NATURAL HISTORY—ZOOLOGY, VOL. XIII

202 (Aruba), 208 (Curaçao), 213 (Bonaire), 219 (Orchilla), 225 (Blanquilla), 1909—Leeward Islands.

*Mimus gilvus* (not *Turdus gilvus* Vieillot) Cory, Field Mus. Nat. Hist., Orn. Ser., 1, p. 222, 1909—Tortuga Island.

*Range*.—Islands of Aruba, Curaçao, Bonaire, Orchilla, Tortuga, and Blanquilla, Caribbean Sea (Dutch West Indies).

54: Aruba, 6; Curaçao, 8; Bonaire, 10; Orchilla, 8; Tortuga, 16; Blanquilla, 6.

#### \**Mimus gilvus melanopterus* Lawrence.<sup>1</sup> BLACK-WINGED MOCKINGBIRD.

*Mimus melanopterus* Lawrence, Ann. Lyc. Nat. Hist. N. Y., 5, No. 1, p. 35, pl. 2, May, 1849—Venezuela (type now in the American Museum of Natural History, New York, examined); Sclater, Proc. Zool. Soc. Lond., 27, p. 342, 1859—part, Venezuela and "Trinidad"; idem, Cat. Coll. Amer. Bds., p. 9, 1862—part, "Rio Negro" and "Trinidad"; Sclater and Salvin, Proc. Zool. Soc. Lond., 1868, p. 166—Carúpano, Venezuela; Wyatt, Ibis, 1871, p. 320—part, Santa Marta.

*Mimus columbianus* Cabanis, Mus. Hein., 1, p. 82, "Jan.," 1851—"Columbien, Venezuela" (the two types in the Heine Collection, now in the Halberstadt Museum, are both marked "Venezuela").

*Mimus gilvus leucoterus* Todd, Proc. Biol. Soc. Wash., 44, p. 46, 1931—Santa Marta, Colombia (type in Carnegie Museum).

<sup>1</sup> *Mimus gilvus melanopterus* Lawrence: Differs from *M. g. gilvus* by larger size (except bill); more extensive white tips to the lateral rectrices; much paler gray upper parts with broader, less abruptly defined whitish markings to the wing coverts; and more purely white lower surface without any, or with very little, grayish suffusion on the chest.

This form varies so much *individually* in size of bill as well as in coloration that further subdivision seems impracticable; but whatever the final conclusion on that subject may be, the names proposed by Lawrence and Cabanis both pertain to the Venezuelan bird, as we have ascertained by examination of the respective types. Although Cabanis gives "Columbien" and "Venezuela" as habitat, the two examples in the Heine Collection, which were kindly submitted to my inspection by the late Ferdinand Heine, are both marked "Venezuela" and agree in every detail with skins from the Venezuelan coast and the Orinoco Valley, viz., the same form to which the type of *M. melanopterus* Lawrence also belongs. Birds from British Guiana and Rio Branco I am unable to separate from the Venezuelan ones, though they are clearly distinct from typical *gilvus* of French and Dutch Guiana. Specimens from Margarita and Testigos Islands are often rather long-billed, certain individuals reaching the measurements of *M. g. rostratus*, while the bulk cannot be distinguished from the Venezuelan average. Similarly long-billed birds, moreover, are occasionally found in other localities, two adults from Rio Hacha, Goajira, in the collection of the Philadelphia Academy of Natural Sciences being particularly noteworthy in that respect. Four birds from Mérida and Tachira have the flanks more heavily streaked with dusky than the general run from Venezuela and British Guiana, a feature which obviously indicates an approach to *M. g. tolimensis*. The mockingbirds from the low country of northern Colombia (*M. g. leucoterus*) are often conspicuous for their small bills, but this is at best an average character, and I fail to see how they can be satisfactorily separated from *melanopterus*. Series from the higher slopes of the Santa Marta Mountains (San Sebastian and El Mamon, alt. 6,600–8,000 ft.), the same that

*Mimus gilvus* (not *Turdus gilvus* Vieillot) Sclater, Proc. Zool. Soc. Lond., 27, p. 342, 1859—British Guiana (monog.); idem, Cat. Coll. Amer. Bds., p. 9, 1862—Orinoco; Taylor, Ibis, 1864, p. 80—Orinoco and coast of Venezuela; Pelzeln, Orn. Bras., 2, p. 95, 1868—part, Forte do São Joaquim, Rio Branco (spec. examined); Salvin and Godman, Ibis, 1880, p. 116—Santa Marta; Sharpe, Cat. Bds. Brit. Mus., 6, p. 350, 1881—part, British Guiana, Venezuela, and "Trinidad"; Salvin, Ibis, 1885, p. 199—Roraima, British Guiana; Zeledón, Anal. Mus. Nac. Costa Rica, 1, p. 104, 1887—El Zarcéro de Alajuela, Costa Rica; Ridgway, Proc. U. S. Nat. Mus., 11, p. 544, 1888—El Zarcéro (crit.); idem, l.c., 14, p. 473, 1891—El Zarcéro (crit.); Robinson and Richmond, l.c., 18, p. 680, 1896—Margarita Island; Phelps, Auk, 14, p. 363, 1897—San Antonio and Cumaná, Venezuela; Clark, Auk, 19, p. 266, 1902—Margarita Island; Ihering and Ihering, Cat. Faun. Braz., 1, p. 328, 1907—part, "Rio Negro," Rio Branco, Venezuela, Guiana; Lowe, Ibis, 1907, p. 563—Margarita Island; Cory, Field Mus. Nat. Hist., Orn. Ser., 1, p. 250, 1909—Margarita Island (crit.); Chubb, Bds. Brit. Guiana, 2, p. 371, 1921—Roraima, upper Takutu Mountains, Mazaruni and Abary rivers; Delacour, Ibis, 1923, p. 148—llanos of Venezuela.

*Mimus gilvus gilvus* Chapman, Bull. Amer. Mus. N. H., 63, p. 109, 1931—Arabupu, Roraima.

[*Mimus gilvus*] *β melanopterus* Ridgway, Proc. U. S. Nat. Mus., 5, pp. 11, 12, 1882—part, Venezuela.

*Mimus gilvus melanopterus* Bangs, Proc. New Engl. Zool. Cl., 1, p. 80, 1899—San Sebastian and El Mamon, Santa Marta Mountains; Allen, Bull. Amer. Mus. N. H., 13, p. 180, 1900—Bonda and Cienaga, Santa Marta; Berlepsch and Hartert, Nov. Zool., 9, p. 3, 1902—Altagracia, Quiribana de Caicara, Maipures, and Ciudad Bolivar, Orinoco, Venezuela (crit.); Stone, Proc. Acad. Nat. Sci. Phila., 65, p. 207, 1913—La Pedrita, Rio de Uracoa, and Caño Corosal, Orinoco Delta, Venezuela; Cherrie, Sci. Bull., Mus. Brookl. Inst., 2, p. 140, 1916—Orinoco region (habits); Todd and Carriker, Ann. Carnegie Mus., 14, p. 394, 1922—San Sebastian and El Mamon, Santa Marta (crit.).

were discussed by Mr. Todd, have on average rather longer bills, but apart from this they seem to me much nearer to *melanopterus* than *tolimensis*. The proper pertinence of the mockingbirds occurring on the Pacific coast of Colombia cannot be determined with the scanty material at present available. While an adult female from Quibdó (alt. 200 ft.) and a female (in first annual plumage) from Alto Bonito, Rio Sucio (alt. 1,500 ft.), are wholly typical of the Caribbean lowland form, an adult male from Dabeiba, Rio Sucio (alt. 2,000 ft.), both in size and blackish auriculars, very nearly matches *tolimensis*. The specimens probably represent the extremes in individual variation, and it may turn out that the mockingbird of the region is an intergrade between *melanopterus* and *tolimensis*.

*Material examined*.—British Guiana: Roraima, 3; Quonga, 1; Annai, 2.—Brazil: Forte do São Joaquim, Rio Branco, 6; Boa Vista, Rio Branco, 6.—Venezuela: Ciudad Bolivar, 4; Altagracia, Rio Orinoco, 8; Quiribana de Caicara, 1; Cariaco, Paria Peninsula, 2; plains of Cumaná, 7; Campos Alegre, Cumaná, 1; Carúpano, Cumaná, 4; Margarita Island, 28; Testigos Islands, 8; Maracay, Aragua, 2; Maracaibo, 2; Rio Aurare, Zulía, 2; El Valle, Mérida, 1; Colón, Tachira, 3; unspecified, 4 (including the types of *M. columbianus* and *M. melanopterus*).—Colombia: Santa Marta, 5; San Sebastian, 9; El Mamon, 2; Rio Hacha, La Goajira, 2; La Playa, near Barranquilla, 1; Aguachica, Magdalena, 3; Alto Bonito, Antioquia, 1; Dabeiba, Rio Sucio, 1; Quibdó, Chocó, 1.

*Mimus gilvus columbianus* Ridgway, Bull. U. S. Nat. Mus., 50, Part 4, p. 236, 1907—part, Santa Marta records, Venezuela, and Costa Rica (El Zarcéro); Carriker, Ann. Carnegie Mus., 6, p. 737, 1910—El Zarcéro, Costa Rica; Chapman, Bull. Amer. Mus. N. H., 36, p. 530, 1917—La Playa (near Barranquilla), Alto Bonito (Rio Sucio), and Quibdó, Colombia (spec. examined); Todd and Carriker, Ann. Carnegie Mus., 14, p. 393, 1922—Bonda, Santa Marta, and Rio Hacha (crit., habits); Darlington, Bull. Mus. Comp. Zool., 71, p. 406, 1931—Rio Frio, Magdalena.

*Mimus gilvus* subsp. Lowe, Ibis, 1909, p. 323—Cariaco Peninsula, Venezuela.

*Mimus gilvus rostratus* (not of Ridgway) Lowe, Ibis, 1909, p. 319—part, Testigos Islands (crit.); Cory, Field Mus. Nat. Hist., Orn. Ser., 1, p. 232, 1909—Testigos Islands.

**Range.**—British Guiana; adjacent section of extreme northern Brazil (upper Rio Branco); Venezuela, south to the Orinoco Valley; Margarita Island; Testigos Islands; northern Colombia (Santa Marta region; Caribbean coast; (?) Pacific lowlands south to Quibdó, Chocó). (?) Accidental in Costa Rica (one record from El Zarcéro).<sup>1</sup>

53: British Guiana (Roraima, 1); Brazil (Bôa Vista, Rio Branco, 6); Venezuela (Testigos Islands, 8; Margarita Island, 28; Maracay, Aragua, 2; Maracaibo, 2; Rio Aurare, Zulia, 2; Colón, Tachira, 3); Colombia (Santa Marta, 1).

**\**Mimus gilvus tolimensis* Ridgway.<sup>2</sup> TOLIMA MOCKINGBIRD.**

*Mimus gilvus tolimensis* Ridgway, Smiths. Misc. Coll., 47, p. 113, Aug., 1904—plain of Tolima, Colombia (type in the Academy of Natural Sciences, Philadelphia, examined); Chapman, Bull. Amer. Mus. N. H., 36, p.

<sup>1</sup> Venezuelan trade skins are sometimes marked "Trinidad." An authentic specimen from this island, however, seems to belong to *M. g. tobagensis*.

<sup>2</sup> *Mimus gilvus tolimensis* Ridgway: Similar to *M. g. melanopterus*, but larger throughout, wings and tail decidedly longer. In coloration, there is no character that holds in every single case, though most of the specimens have the loreal, subocular, and upper auricular regions more blackish, forming a conspicuous dusky streak across the sides of the head, while the flanks are as a rule more strongly streaked with blackish brown.

**Material examined.**—Colombia: plain of Tolima, 1 (the type); Chicoral River, Tolima, 1; Barro Blanco, Antioquia, 1; near San Agustín, Huila, head of Magdalena Valley, 1; Salento, west Quindío Andes, Cauca, 1; Caldas, Rio Dagua, Cauca, 1; Andalucia, eastern Andes, 1; La Holanda, Cundinamarca, 1; "Bogota," 11.

**MEASUREMENTS**

**Adult Males**

<i>M. g. melanopterus</i>	Wing	Tail	Bill
Six from Altagracia,			
Orinoco River.....	111, 113, 115, 117, 119, 120	123, 124, 125, 126, 127, 130	17½, 18, 19, 19, 19, 19
One from Ciudad Bolívar,			
Orinoco River.....	116	127	18
One from Cariaco, Paria			
Peninsula.....	120	137	20
Two from Cumaná, Sucre,			
Venezuela.....	117, 117	132, 133	19, 19

529, 1917—Dabeiba (Rio Sucio), Caldas (Rio Dagua), Salento and Barro Blanco (west slope of central Andes), Honda and Chicoral (Magdalena Valley), La Herrera and La Holanda (near Bogotá), Andalucia (west slope of eastern Andes), and San Agustín, Colombia.

*Mimus* ———(?) Sclater, Proc. Zool. Soc. Lond., 23, p. 145, 1855—Bogotá.

*Mimus melanopterus* (not of Lawrence) Sclater, Proc. Zool. Soc. Lond., 27, p. 342, 1859—part, New Granada; idem, Cat. Coll. Amer. Bds., p. 9, 1862—part, Bogotá; Wyatt, Ibis, 1871, p. 320—part, Ocaña.

#### Adult Males—continued

	Wing	Tail	Bill
One from Maracaibo, Zulia...119	...	...	20
One from Rio Aurare, Zulia...117	120	...	20
Two from Colón, Tachira...115, 120	120, 133	...	20, 20
One from near Barranquilla, Colombia...117	123	...	20
One from Aguachica, Magdalena...118	128	...	18
Three from Santa Marta...111, 117, 118	115, 125, ...	...	20, 21, 21
One from Rio Hacha, La Goajira...119	120	...	20
<i>M. melanopterus</i> $\neq$ <i>M. g. tolimensis</i>			
One from Dabeiba, Rio Sucio, Colombia...123	131	...	20
<i>M. g. tolimensis</i>			
Type of <i>M. g. tolimensis</i> , plain of Tolima...129	142	...	23
One from Chicoral, Tolima...127	140	...	21
One from Andalucia, eastern Andes...124	135	...	21
One from La Holanda, Cundinamarca...121	...	...	21
One from Caldas, Rio Dagua...123	133	...	21

#### Adult Females

<i>M. g. melanopterus</i>			
Three from Ciudad Bolívar, Orinoco River...107, 108, 110	123, 125, 128	...	18, 18½, 18½
Three from Altagracia, Orinoco River...105, 107, 114	122, 130, ...	...	18, 19, 19
One from Cariaco, Paria Peninsula...107	120	...	18
Six from Cumaná, Sucre, Venezuela...104, 105, 107, 108, ..., ...	113, 117, 120, ..., ..., ...	...	20, 20, 21, 21, 21, 22
One from Rio Aurare, Zulia...109	112	...	19½
One from Colón, Tachira...108	122	...	19
Two from Aguachica, Magdalena...118, ...	128, ...	...	17½, 17½
One from Santa Marta...109	116	...	19
One from Rio Hacha, La Goajira...113	118	...	20
<i>M. g. melanopterus</i> $\neq$ <i>M. g. tolimensis</i>			
One from Quibdó, Chocó, Colombia...116	125	...	20
<i>M. g. tolimensis</i>			
One from Barro Blanco, Antioquia...117	133	...	19

*Mimus gilvus* (not *Turdus gilvus* Vieillot) Selater and Salvin, Proc. Zool. Soc. Lond., 1879, p. 492—Medellin, Antioquia (eggs descr.); Sharpe, Cat. Bds. Brit. Mus., 6, p. 350, 1881—part, Colombia; Stone, Proc. Acad. Nat. Sci. Phila., 51, p. 312, 1899—plain of Tolima.

*Mimus gilvus columbianus* (not of Cabanis) Berlepsch, Journ. Orn., 32, p. 279, 1884—Bucaramanga; idem, l.c., 40, p. 75, 1892—Bucaramanga (crit.).

**Range.**—Arid Tropical and Temperate zones of Colombia, excepting the Santa Marta region and the Caribbean coast district.

2: Colombia (La Holanda, 42 km. northeast of Bogotá, Cundinamarca, 1; Caldas, Rio Dagua, Cauca, 1).

**\**Mimus gilvus gracilis* Cabanis. GUATEMALAN MOCKINGBIRD.**

*Mimus gracilis* Cabanis, Mus. Hein., 1, p. 83 (footnote), "Jan.," 1851—"Central America (Honduras ?)" (type in Berlin Museum examined);<sup>1</sup> Selater, Proc. Zool. Soc. Lond., 27, p. 343, 1859—Guatemala and Honduras; Selater and Salvin, Ibis, 1859, p. 7—part, Salamá, Vera Paz, Guatemala; Taylor, Ibis, 1860, p. 110—Comayagua, Honduras; Cabanis, Journ. Orn., 8, p. 410, 1860—"Costa Rica," errore; Owen, Ibis, 1861, p. 60, pl. 2, fig. 2 (egg)—San Gerónimo, Guatemala (nest and eggs); Baird, Rev. Amer. Bds., 1, p. 54, 1864—"Costa Rica," Honduras, and Guatemala (San Gerónimo); Salvin, Ibis, 1866, p. 202—Guatemala; Lawrence, Ann. Lyc. Nat. Hist. N. Y., 9, p. 91, 1868—"Costa Rica" (ex Cabanis)= Guatemala (cf. Frantz, Journ. Orn., 17, p. 290, 1869); idem, Bull. U. S. Nat. Mus., 4, p. 12, 1876—Tehuantepec City, Oaxaca; Nelson, Auk, 15, p. 159, 1898—from the interior of Chiapas to the Pacific coast.

*Mimus gilvus lawrencei* Ridgway, Proc. U. S. Nat. Mus., 5, p. 10, 1882—Tehuantepec City, Oaxaca (type in U. S. National Museum); idem, Bull. U. S. Nat. Mus., 50, Part 4, p. 240, 1907—State of Oaxaca (monog.); Bangs and Peters, Bull. Mus. Comp. Zool., 68, p. 399, 1928—Chivelá, Oaxaca; Griscom, Bull. Amer. Mus. N. H., 64, p. 300, 1932—western Guatemala (crit.).

*Mimus gilvus guatemalensis* Ridgway, Smiths. Misc. Coll., 47, p. 113, Aug., 1904—Capetillo, Dept. Suchitepéquez, Guatemala (type in U. S. National Museum); idem, Bull. U. S. Nat. Mus., 50, Part 4, p. 239, 1907—highlands of Guatemala, Chiapas, Tabasco, and (?) Vera Cruz (monog.); Dearborn, Field Mus. Nat. Hist., Orn. Ser., 1, p. 132, 1907—Lake Atitlan, Guatemala.

[*Mimus gilvus*] *γ gracilis* Ridgway, Proc. U. S. Nat. Mus., 5, pp. 11, 12, 1882—part, Guatemala and Honduras.

*Mimus gilvus* (not *Turdus gilvus* Vieillot) Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 36, 1879—part, Tehuantepec, Guatemala, and Honduras; Sharpe, Cat. Bds. Brit. Mus., 6, p. 350, 1881—part, Tehuantepec, Guatemala, and Honduras (Comayagua).

<sup>1</sup> Recent reexamination of the type in the Berlin Museum reveals the fact that *M. gracilis* of Cabanis refers to the form known under the name of *M. g. guatemalensis*. The type, an adult in fresh plumage, agrees with specimens from western Guatemala in dark brownish gray (a little paler than "mouse gray") upper parts, being very different from the Yucatan race with clear pearl gray dorsal coloration. As pointed out by Griscom, *M. g. lawrencei*, from Oaxaca, is evidently inseparable from the present form.

*Mimus gracilis lawrencei* Nelson, Auk, 15, p. 159, 1898—Isthmus of Tehuantepec.

**Range.**—Highlands of Honduras (Comayagua), western Guatemala, and southern Mexico, in states of Oaxaca (Tehuantepec City, San Mateo del Mar, Chivelá), Chiapas, Tabasco (Frontera), and southern Vera Cruz (Coatzacoalcos).

1: Guatemala (Lake Atitlan, 1).

**\*Mimus gilvus leucophaeus** Ridgway. YUCATAN MOCKINGBIRD.

*Mimus gilvus leucophaeus* Ridgway, Proc. U. S. Nat. Mus., 10, p. 506, 1888—Cozumel Island (type in U. S. National Museum).

*Mimus gracilis* (not of Cabanis) Selater and Salvin, Ibis, 1859, p. 7—part, Belize, British Honduras; Moore, Proc. Zool. Soc. Lond., 27, p. 55, 1859—Belize; Lawrence, Ann. Lyc. Nat. Hist. N. Y., 9, p. 199, 1869—Mérida, Yucatan; Nehrkorn, Journ. Orn., 29, p. 66, 1881—Yucatan (eggs descr.); Stone, Proc. Acad. Nat. Sci. Phila., 1890, p. 211—Progreso and near Ticul, Yucatan; Nelson, Auk, 15, p. 159, 1898—east coast of Mexico from Yucatan to the Isthmus.

[*Mimus gilvus*]  $\gamma$  *gracilis* Ridgway, Proc. U. S. Nat. Mus., 5, pp. 11, 12, 1882—part, Yucatan.

*Mimus gilvus gracilis* Ridgway, Proc. U. S. Nat. Mus., 8, p. 562, 1885—Cozumel Island; idem, Bull. U. S. Nat. Mus., 50, Part 4, p. 237, 1907—British Honduras, Yucatan, Campeche, and northeastern Tabasco (monog.); Cole, Bull. Mus. Comp. Zool., 50, p. 146, 1906—Progreso, Yucatan; Peters, Auk, 30, p. 376, 1913—Camp Mengel, Quintana Roo; Griscom, Amer. Mus. Nov., 235, p. 15, 1926—eastern Quintana Roo; idem, l.c., 236, p. 11, 1926—Cozumel Island.

*Mimus gilvus* (not *Turdus gilvus* Vieillot) Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 36, 1879—part, Yucatan (Mérida), Belize, and Lighthouse and Glover's reefs, British Honduras; Sharpe, Cat. Bds. Brit. Mus., 6, p. 350, 1881—part, Yucatan; Boucard, Proc. Zool. Soc. Lond., 1883, p. 439—Yucatan; Salvin, Ibis, 1888, p. 244—Islands of Meco, Holbox, Mugerres, and Cozumel (crit.).

**Range.**—British Honduras (Belize; Manatee; Lighthouse and Glover's reefs); Yucatan, including Meco, Holbox, Mugerres, and Cozumel islands; Quintana Roo (Camp Mengel); Campeche (Campeche), and northeastern Tabasco (Montecristo).<sup>1</sup>

10: Yucatan (San Felipe, 1; Mérida, 1; unspecified, 6; Cozumel Island, 2).

**\*Mimus magnirostris** Cory.<sup>2</sup> LARGE-BILLED MOCKINGBIRD.

<sup>1</sup> Birds from Yucatan have shorter white tips to the lateral rectrices than the two Cozumel specimens, but agree in the clear gray coloration of the upper parts.

<sup>2</sup> *Mimus magnirostris* Cory, which may be merely an offshoot of *M. gilvus*, differs from the Central American representatives by its gigantic size, enormous bill, and exceedingly long tail with restricted white apical spots too strikingly to be treated as a race of that group.

*Mimus magnirostris* Cory, Auk, 4, p. 178, 1887—St. Andrews Island, Caribbean Sea (type now in Field Museum); idem, l.c., p. 181, 1887—St. Andrews Island; Ridgway, Bull. U. S. Nat. Mus., 50, Part 4, p. 241, 1907—St. Andrews Island; Fisher and Wetmore, Proc. U. S. Nat. Mus., 79, art. 10, p. 15, 1931—St. Andrews Island.

Range.—St. Andrews Island, Caribbean Sea.

6: St. Andrews Island.

**\**Mimus patagonicus* (Lafresnaye and d'Orbigny).<sup>1</sup> PATAGONIAN MOCKINGBIRD.**

*Orpheus patagonicus* Lafresnaye and d'Orbigny, Syn. Av., 1, in Mag. Zool., 7, cl. 2, p. 19, 1837—Patagonia—Rio Negro (type in Paris Museum examined); d'Orbigny, Voy. Amér. Mérid., Ois., p. 210, pl. 11, fig. 2, 1838—Rio Negro, Patagonia.

*Mimus patagonicus tricosus* Wetmore and Peters, Proc. Biol. Soc. Wash., 36, p. 145, 1923—Lujan de Cuyo, Mendoza (type in U. S. National Museum); Wetmore, Bull. U. S. Nat. Mus., 133, p. 353, 1926—Mendoza, Potrerillos, and El Salto, Mendoza.

*Mimus patagonicus*<sup>2</sup> Darwin, Zool. Beagle, 3, p. 60, 1839—Rio Negro and Santa Cruz, Patagonia; Sclater, Proc. Zool. Soc. Lond., 27, p. 344, 1859—Rio Negro (monog.); Hudson, l.c., 1872, p. 538—Rio Negro (habits); Sclater, l.c., 1872, p. 548—Rio Negro; Durnford, Ibis, 1877, p. 31—Chubut River (breeding); idem, Ibis, 1878, p. 392—Rio Sengel, Chubut, Patagonia; Doering, in Roca, Inf. Of. Exp. Rio Negro, Zool., p. 36, 1881—Nueva Roma (Buenos Aires), Rio Colorado, and Sierra de Cordoba; Sharpe, Cat. Bds. Brit. Mus., 6, p. 352, 1881—Santa Cruz and Rio Negro; Sclater and Hudson, Arg. Orn., 1, p. 7, 1888—Patagonia (habits); C. Burmeister, Anal. Mus. Nac. Hist. Nat. Buenos Aires, 3, p. 244, 1888—Patagonia; idem, l.c., 3, p. 317, 1890—Rio Chico de Santa Cruz, Rio Singuer (Caprekaik), and Fortin Villegas, on the Rio Chubut, Patagonia;

<sup>1</sup> *Mimus patagonicus* (Lafresnaye and d'Orbigny), a very distinct species, appears to be most nearly allied to *M. gilvus lividus*, but has a much shorter tail and differs widely in coloration by lacking the whitish frontal band and by having the upper parts light hair brown (instead of ashy gray) washed with tawny olive on the rump, and the flanks extensively cinnamon-buff with very little, if any, dusky streaking.

I am unable to recognize *M. p. tricosus*. Three newly molted adults from Mendoza, when compared with Patagonian birds in similar plumage, show exactly the same light hair brown shade of the upper parts, being by no means more grayish, and do not seem to differ in any other respect either, so far as I can see. Size varies a good deal in this species, but this is obviously individual. The breeding area of the Patagonian Mockingbird has yet to be determined; it is probably restricted to the southern part of the bird's range.

*Material examined.*—Jujuy: Maimará (June), 1.—Tucumán: Rio Salí (June), 3; Monteagudo (December), 1.—Catamarca: Fuerte de Andalgalá (September), 1; Gualfin (September), 1.—Mendoza: Mendoza (May), 3.—Neuquen: Neuquen (November), 1; Confluencia (October), 1; Bajada Colorada (December), 1; Arroytos (October), 1; Piedra del Aguila (November), 1.—Entre Rios: Santa Elena (May), 1.—Buenos Aires: near Bonifacio (May–June), 3; La Plata, 1.—Rio Negro: Rio Negro, 3 (including the type).—Chubut: Rivadavia (July), 1.

<sup>2</sup> Often spelled "*patachonicus*."



Oustalet, Miss. Sci. Cap Horn, 6, p. B 279, 1891—Patagonia; Koslowsky, Rev. Mus. La Plata, 6, p. 277, 1895—Chilecito, La Rioja; Holland, Ibis, 1895, p. 214—Santa Elena, Entre Rios; Salvadori, Ann. Mus. Civ. Stor. Nat. Genova, 40, p. 618, 1900—Isla Pavon, Santa Cruz, Patagonia; Bruch, Rev. Mus. La Plata, 11, p. 256, 1904—Salta; Hartert and Venturi, Nov. Zool., 16, p. 163, 1909—Tucumán; Dabbene, Anal. Mus. Nac. Hist. Nat. Buenos Aires, 18, pp. 363, 435, 1910—Chubut, Rio Negro, Rio Colorado, La Rioja (Chilecito), Salta, Sierra de Tucumán, Entre Rios; Reed, Av. Prov. Mendoza, p. 41, 1916—Mendoza; Hellmayr, Nov. Zool., 28, p. 241, 1921—Patagonia (range; crit.); Giacomelli, El Hornero, 3, p. 67, 1923—La Rioja (winter); Wilson, l.c., p. 360, 1926—Dept. General López, southern Entre Rios; Budin, l.c., 4, p. 411, 1931—Maimará, Jujuy.

*Mimus thenca* (not *Turdus thenca* Molina) Burmeister, Journ. Orn., 8, p. 252, 1860—Mendoza; idem, Reise La Plata St., 2, p. 475, 1861—Mendoza and western provinces (eggs descr.).

*Mimus thenca* (*M. patachonicus*) Frenzel, Journ. Orn., 39, p. 118, 1891—Cordoba.

*Mimus calandria* (errore) White, Proc. Zool. Soc. Lond., 1882, p. 593—Fuerte de Andalgalá, Catamarca (part; spec. examined in Tring Museum).

*Mimus patagonicus patagonicus* Peters, Bull. Mus. Comp. Zool., 65, p. 328, 1923—San Antonio, Huanuluan, and Maquinchao, Rio Negro; Wetmore, Bull. U. S. Nat. Mus., 133, p. 353, 1926—General Roca, Rio Negro, and Challaco, Neuquen; idem, Univ. Calif. Pub. Zool., 24, p. 455, 1926—San Antonio Oeste and Paja Alta, Rio Negro; Stone, Rep. Princet. Univ. Exp. Patag., 2, (2), Part 5, p. 820, 1928—Santa Cruz and Rio Chico, Patagonia.

**Range.**—Western and southern Argentina, in provinces of Jujuy, Salta, Tucumán, Catamarca, La Rioja, Cordoba, and Mendoza, south through Patagonia to the Rio Chico; accidental in Entre Rios (one definite record from Santa Elena, May 3).

9: Tucumán (Rio Salí, 1; Monteagudo, 1); Catamarca (Gualfin, 2); Mendoza (Mendoza, 1); Buenos Aires (Bonifacio, 1; El Inca, Bonifacio, 1; Papin, near Bonifacio, 1); Chubut (near Rivadavia, 1).

**\**Mimus thenca* (Molina). CHILEAN MOCKINGBIRD.**

*Turdus thenca* Molina, Saggio Stor. Nat. Chile, pp. 250, 345, 1782—Chile; Meyen, Nov. Act. Acad. Caes. Leop. Carol., 16, Suppl., p. 75, 1834—Santiago; Kittlitz, Denkw. Reise, 1, pp. 121, 135, 147, 1858—Concepción and Valparaíso.

*Orpheus australis* Lesson, in Bougainville, Journ. Navig. Thétis, 2, p. 328, 1837—Valparaíso; new name for *Turdus thenca* Molina.

*Orpheus thenca* Lafresnaye and d'Orbigny, Syn. Av., 1, in Mag. Zool., 7, cl. 2, p. 17, 1837—Chile; d'Orbigny, Voy. Amér. Mérid., Ois., p. 209, pl. 10, fig. 3, 1838—Valparaíso.

*Mimus thenca* Darwin, Zool. Beagle, 3, p. 61, 1839—part, northern and central Chile south to Concepción; Fraser, Proc. Zool. Soc. Lond., 11,

p. 111, 1843—Chile (habits, eggs); Des Murs, in Gay, *Hist. fis. pol. Chile*, Zool., 1, p. 333, 1847—Chile (habits); Cassin, in Gilliss, *U. S. Astr. Exp.*, 2, p. 183, 1855—Chile; Sclater, *Proc. Zool. Soc. Lond.*, 27, p. 344, 1859—Chile (monog.); Frauenfeld, *Verh. Zool. Bot. Ges. Wien*, 10, Abh., p. 637, 1860—near Santiago; Germain, *Proc. Bost. Soc. N. H.*, 7, p. 311, 1860—Santiago (breeding habits); Sclater, *Proc. Zool. Soc. Lond.*, 1867, pp. 320, 337—Chile; Philippi, *Anal. Univ. Chile*, 31, p. 260, 1868—Chile; Sclater and Salvin, *Ibis*, 1870, p. 499—Coquimbo; Landbeck, *Zool. Gart.*, 18, p. 247, 1877—central and northern provinces, very common in Cauquenes; Reed, *Anal. Univ. Chile*, 49, p. 541, 1877—Cauquenes, Colchagua; Sharpe, *Cat. Bds. Brit. Mus.*, 6, p. 345, 1881—Valparaiso and Coquimbo; idem, *Proc. Zool. Soc. Lond.*, 1881, p. 7—Coquimbo; Allen, *Bull. Amer. Mus. N. H.*, 2, p. 78, 1889—Valparaiso and "lower Beni River, Bolivia" (errore); Lataste, *Act. Soc. Scient. Chili*, 3, pp. CXIV, CXV, 1893—Bureo, Nuble, and Ninhue, Maule; idem, *l.c.*, 5, p. XXXIII, 1895—Caillihue, Curicó; Waugh and Lataste, *l.c.*, 4, p. LXXXV, 1894—Peñaflor, Santiago; idem, *l.c.*, p. CLXXI, 1895—San Alfonso (Quillota), Valparaiso; Reed, *Anal. Univ. Chile*, 93, p. 199, 1896—Chile; Lane, *Ibis*, 1897, p. 9—Hacienda Mansel and Melipilla, Santiago; Schalow, *Zool. Jahrb., Suppl.*, 4, p. 730, 1898—Ovalle (Coquimbo) and Santiago (eggs descr.); Albert, *Anal. Univ. Chile*, 100, p. 890, 1898—Chile (monog.); C. Reed, *Av. Prov. Concepción*, p. 18, 1904—Chiguayente and Hualqui, Concepción; Hellmayr, *Nov. Zool.*, 28, p. 240, 1921—Valparaiso; Paessler, *Journ. Orn.*, 70, p. 473, 1922—Coronel (habits, nest and eggs); Barros, *Rev. Chil. Hist. Nat.*, 24, p. 148, 1920—Nilahue, Curicó; idem, *l.c.*, 25, p. 187, 1921—Los Andes, Los Leones, and Los Piuquenes, Aconcagua; Housse, *l.c.*, 29, p. 146, 1925—San Bernardo, Santiago; Wetmore, *Bull. U. S. Nat. Mus.*, 133, p. 353, 1926—Concon, Valparaiso; Jaffuel and Pirion, *Rev. Chil. Hist. Nat.*, 31, p. 108, 1928—Marga-Marga, Valparaiso; Bullock, *l.c.*, 33, p. 125, 1929—Cerro de Nahuelbuta, Malleco; idem, *l.c.*, p. 184, 1929—Angol, Malleco; Hellmayr, *Field Mus. Nat. Hist., Zool. Ser.*, 19, p. 32, 1932—Chile (crit., range).

*Mimus thenka* Pelzeln, *Reise Novara, Zool. Theil*, 1, (2), p. 73, 1865—Chile.

*Mimus patagonicus* (not *Orpheus patagonicus* Lafresnaye and d'Orbigny)  
Bibra, *Denks. Math.-Naturwiss. Kl. Akad. Wiss. Wien*, 5, p. 129, 1853  
—Valparaiso.

*Range*.—Chile, from southern Atacama (Domeyko) to Cautín.<sup>1</sup>

<sup>1</sup> Birds from Aconcagua and northwards are somewhat paler, less brownish above with hardly any cinnamonous suffusion on the rump, and much less buffy underneath, the chest being strongly washed with grayish. This apparent divergence may be seasonal, however, as most of the northern specimens examined are in more worn plumage than those from the south.

I have not been able to make out *Mimus nebouxi* Bonaparte (*Compt. Rend. Acad. Sci. Paris*, 38, p. 57, 1854; *Not. Orn. Coll. Delattre*, p. 39, 1854) from Port Famine, Straits of Magellan, the type of which is credited to the Paris Museum. The description, "tres proche de *M. triurus*, mais en diffère par l'absence du châtain sur le dos," is hardly sufficient to identify the species. The Paris Museum has only one skin from "Port Famine" brought back by the expedition of the "Astrolabe," but it does not bear Bonaparte's name on the label. This bird does not differ in any respect from Chilean examples, and if it is the type of *M. nebouxi*,

12: Chile (Domeyko, Atacama, 1; Romero, Coquimbo, 1; Pai-guano, Coquimbo, 1; Los Andes, Aconcagua, 3; Baños de Cauquenes, Colchagua, 1; Quirihue, Maule, 1; Concepción, 1; Hacienda de Gualpencillo, Concepción, 3).

**\**Mimus longicaudatus longicaudatus* Tschudi.<sup>1</sup> LONG-TAILED MOCKINGBIRD.**

*Mimus longicaudatus* Tschudi, Arch. Naturg., 10, (1), Heft 3, p. 280, May, 1844—Peru (type in Neuchâtel Museum); idem, Untersuch. Faun. Peru., Aves, p. 190, pl. 15, fig. 2, 1846—"hot forest-region of Peru," errore, we suggest Lima as type locality; Sclater, Proc. Zool. Soc. Lond., 27, p. 345, 1859—Peru (ex Tschudi); idem, l.c., 1866, p. 96—Lima, Rio Rimac (breeding); Taczanowski, l.c., 1874, p. 504—Lima; idem, l.c., 1877, p. 749—Tumbez (eggs descr.); idem, l.c., 1880, p. 190—Chepen, Dept. Libertad; Sharpe, Cat. Bds. Brit. Mus., 6, p. 342, 1881—part, western Peru; Taczanowski, Orn. Pér., 1, p. 498, 1884—Tumbez, Lima, Culebras (Ancachs), Guadalupe and Chepen (Libertad); Berlepsch and Stolzmann, Proc. Zool. Soc. Lond., 1892, p. 373—Lima and Ica; Salvin, Nov. Zool., 2, p. 2, 1895—Viña, Huamachuco, Marañón Valley.

*Mimus peruvianus* Peale, U. S. Expl. Exp., 8, p. 87, 1848—Callao, near Lima (type in U. S. National Museum).

*Mimus (Orpheus) leucospilos* Pelzeln, Sitzungsber. Math.-Naturwiss. Kl. Akad. Wiss. Wien, 31, p. 323, 1858—"Chili," errore (type in Vienna Museum examined).

*Mimus nigriloris* Lawrence, Ann. Lyc. Nat. Hist. N. Y., 10, p. 137, 1871—"Mexico," errore (type in the American Museum of Natural History, New York, examined).

*Mimus thenca* (not *Turdus thenca* Molina) Darwin, Zool. Beagle, 3, p. 61, 1839—part, near Lima, coast of Peru.

*Mimus longicaudatus longicaudatus* Zimmer, Field Mus. Nat. Hist., Zool. Ser., 17, p. 409, 1930—Chosica (Lima) and Menocucho (Libertad).

this name becomes a synonym of *M. thenca*. We strongly doubt the correctness of the locality, this mockingbird never having been met with again in the Straits of Magellan.

*Additional material examined.*—Valparaiso: Valparaiso, 5.—Cautín: Pelal, near Temuco, 4; Cholchol, near Temuco, 1; Maquehue, near Temuco, 3.

<sup>1</sup> *Mimus l. longicaudatus* Tschudi probably is subspecifically related to *M. thenca*, from which it differs by much more lengthened tail, longer bill, nearly wholly white primary coverts, more spotted upper parts, etc.

Birds from Ica (two), Lima (two), and Libertad (Menocucho) seem to be alike. The only two specimens which we have seen from the Marañón Valley (Viña, Huamachuco) are in badly worn plumage, but judging from their proportions they are obviously referable to *longicaudatus* rather than *albogriseus*. According to Chapman (Amer. Mus. Nov., 143, p. 16, 1924), this form passes so gradually into *punensis* that it is well-nigh impossible to draw a line between the two races, many specimens from northwestern Peru and the adjoining parts of Ecuador being variously intermediate. Marañón birds have since been separated as *M. l. maranonicus* Carriker (Proc. Acad. Nat. Sci. Phila., 85, p. 33, March, 1933).

*Mimus longicaudatus punensis* (not of Hellmayr) Bangs and Noble, Auk, 35, p. 456, 1918—Sullana, Dept. Piura, Peru.

*Range*.—Arid Tropical zone of Peru, from the Ecuadorian boundary to Ica, and in the upper Marañón Valley (Viña, Huamachuco, Huancabamba).

5: Peru (Chosica, Lima, 1; Menocucho, Libertad, 4).

***Mimus longicaudatus albogriseus* Lesson.<sup>1</sup> ECUADORIAN LONG-TAILED MOCKINGBIRD.**

*Mimus albogriseus* Lesson, Echo du Monde Sav., 11, 2nd sem., No. 28, col. 346 [658], Oct. 13, 1844 (reprint, p. 214)—"Gayaquil"—Guayaquil, Ecuador (type in coll. Abeillé, Bordeaux).

*Mimus longicaudatus punensis* Hellmayr, Verh. Zool. Bot. Ges. Wien, 53, p. 222, 1903—Puna Island, Ecuador (type in Vienna Museum); Chapman, Bull. Amer. Mus. N. H., 55, p. 576, 1926—Bahia de Caragues, Manta, Santa Elena, Guayaquil, Puna Island, Jambeli Island, Santa Rosa, Casanga, and Loja, Ecuador.

*Mimus longicaudatus* (not of Tschudi) Sharpe, Cat. Bds. Brit. Mus., 6, p. 342, 1881—part, Santa Elena, Ecuador; Berlepsch and Taczanowski, Proc. Zool. Soc. Lond., 1883, p. 539—Guayaquil (crit.); Salvadori and Festa, Boll. Mus. Zool. Torino, 14, No. 357, p. 5, 1899—Puntilla de Santa Elena, Ecuador.

*Mimus leucospilus* (not of Pelzeln) Selater, Proc. Zool. Soc. Lond., 27, p. 344, 1859—bay of Santa Elena, Ecuador (monog.).

*Mimus longicaudatus albogriseus* Hellmayr, Verh. Orn. Ges. Bay., 14, p. 133, 1919 (crit.).

*Range*.—Arid Tropical zone of southwestern Ecuador, north to Caragues Bay.

***Mimus longicaudatus platensis* Chapman.<sup>2</sup> LA PLATA ISLAND MOCKINGBIRD.**

*Mimus longicaudatus platensis* Chapman, Amer. Mus. Nov., 143, p. 15, 1924—La Plata Island, off Prov. Manaví, Ecuador (type in the American Museum of Natural History, New York); idem, Bull. Amer. Mus. N. H., 55, p. 577, 1926—La Plata Island.

*Range*.—La Plata Island, off the Province of Manaví, western Ecuador.

<sup>1</sup> *Mimus longicaudatus albogriseus* Lesson: Similar to *M. l. longicaudatus*, but markedly smaller; bill shorter and slenderer without the brownish base to the lower mandible; lores and upper auriculars deeper blackish; upper parts edged with grayish rather than brown; breast grayish instead of brownish; white tips to rectrices more extended. Wing, 110–117; tail, 130–143; bill, 21–22.

*Material examined*.—Ecuador: Guayaquil, 3; Puna Island, 3.

<sup>2</sup> *Mimus longicaudatus platensis* Chapman: Resembling *M. l. albogriseus* in coloration, but larger, the bill especially so. Wing (male), 122–127; tail, 143–158; bill, 24–25.

Two specimens from the type locality examined.

**Mimus saturninus saturninus** (Lichtenstein). LOWER AMAZON-  
IAN MOCKINGBIRD.

*Turdus saturninus* Lichtenstein, Verz. Doubl. Berliner Mus., p. 39, 1823—"Pará"—Rio Tapajóz, Pará (type in Berlin Museum); Sclater, Proc. Zool. Soc. Lond., 27, p. 344, 1859—part, Pará; Allen, Bull. Essex Inst., 8, p. 78, 1876—Santarém; Riker and Chapman, Auk, 7, pp. 135, 136, 1890—Diamantina, Santarém (crit., descr.); Ihering and Ihering, Cat. Faun. Braz., 1, p. 327, 1907—"Pará"; Snethlage, Bol. Mus. Goeldi, 8, p. 493, 1914—Rio Tapajóz (Santarém) and Monte Alegre, Brazil.

*Range*.—Northern Brazil, in State of Pará (Monte Alegre; Santarém and Diamantina, Rio Tapajóz).<sup>1</sup>

\***Mimus saturninus frater** Hellmayr.<sup>2</sup> BRAZILIAN MOCKINGBIRD.

*Mimus saturninus frater* Hellmayr, Verh. Zool. Bot. Ges., Wien, 53, p. 220, 1903—Ypanema, São Paulo, Brazil (type in Vienna Museum); Ihering and Ihering, Cat. Faun. Braz., 1, p. 327, 1907—São Paulo (Ypanema) and "Paraná"; Hellmayr, Nov. Zool., 15, p. 15, 1908—Goyaz (Goyaz, Fazenda Esperança, Catalão), Minas Geraes (Rio Jordão, Prov. Araguay), and Matto Grosso (Miranda); Holt, Bull. Amer. Mus. N. H., 57, p. 312, 1928—Bemfica and Monte Serrat, Itatiaya; Hellmayr, Field Mus. Nat. Hist., Zool. Ser., 12, p. 251, 1929—Maranhão (São Francisco, Rio Parnahyba; Codó, Cocos; Grajahú; Carolina), Bahia (Barro Vermelho, Rio Preto), and Piahy (Santo Antonio de Gilboez); Naumburg, Bull. Amer. Mus. N. H., 60, p. 327, 1930—Tapirapoan, Matto Grosso (crit.; range).

*Mimus saturninus* (not *Turdus saturninus* Lichtenstein) Wied, Beitr. Naturg. Bras., 3, (2), p. 658, 1831—Valo, near Barra [da Vareda], northeastern Minas Geraes; Burmeister, Syst. Uebers. Th. Bras., 3, p. 127, 1856—Lagôa Santa, Minas Geraes; Pelzeln, Orn. Bras., 2, p. 95, 1868—São Paulo (Oudaria, Mattodentro, Casa Pintada, Rio Verde, Ypanema) and Matto Grosso (Cuyabá, Villa Bella); Reinhardt, Vidensk. Medd. Naturhist. Foren., 1870, p. 448—Minas Geraes; Ihering, Rev. Mus. Paul., 3, p. 129, 1899—São Paulo; Euler, l.c., 4, p. 11, 1900 (nest descr.); Miranda-Ribeiro, Arch. Mus. Nac. Rio de Janeiro, 13, p. 185, 1906—Monte Serrat, Itatiaya, Rio de Janeiro; Lüderwaldt, Zool. Jahrb. (Syst.), 27, p. 355, 1909—Campo Bello, Parahyba Valley, Prov. Rio de Janeiro; Ménégau, Rev. Franç. d'Orn., No. 115, p. 333, 1918—Las Pedras, near Passo Quatro, Minas Geraes.

<sup>1</sup> *Material examined*.—Brazil: Monte Alegre, 2; Santarém, Rio Tapajóz, 1.

<sup>2</sup> *Mimus saturninus frater* Hellmayr is closely similar to *M. s. saturninus* in proportion of bill, but appears to differ in more brownish upper parts, more buffy suffusion on the rump (in fresh plumage), and less grayish breast. While large series of the present form were available for study, material of typical *saturninus* is altogether inadequate, and it is quite possible that the two races may ultimately turn out to be inseparable. Birds from Matto Grosso and Bolivia average smaller, but the divergency is insignificant.

*Additional material examined*.—Bahia: Barra Vermelho, Rio Preto, 1.—Piahy: Santo Antonio de Gilboez, 1.—Minas Geraes: Agua Suja, near Bagagém, 2; Rio Jordão, Prov. Araguay, 2.—Goyaz: Catalão, 2; Goyaz, 3; Fazenda Esperança, 1.—Matto Grosso: Cuyabá, 1; Chapada, 5; Miranda, 1; Villa Bella de Matto Grosso, 1.—São Paulo: Victoria, 13.

*Mimus calandria* (not *Orpheus calandria* Lafresnaye and d'Orbigny) Sclater, Proc. Zool. Soc. Lond., 27, p. 343, 1859—part, Bolivia.

*Mimus modulator* (not *Orpheus modulator* Gould) Sharpe, Cat. Bds. Brit. Mus., 6, p. 347, 1881—part, Bolivia; Allen, Bull. Amer. Mus. N. H., 3, p. 342, 1891—Chapada, Matto Grosso.

*Mimus saturninus modulator* Ihering and Ihering, Cat. Faun. Braz., 1, p. 327, 1907—part, Matto Grosso and Bolivia.

*Mimus saturninus arenaceus* (not of Chapman) Reiser, Denks. Math.-Naturwiss. Kl. Akad. Wiss. Wien, 76, p. 78, 1910—part, Barra Vermelho, Rio Preto, Bahia, and Santo Antonio de Gilboez, Piahy (spec. examined).

*Range*.—Tableland of eastern Bolivia and Brazil, from Maranhão, Piahy, and northwestern Bahia (Rio Preto) through Goyaz and Minas Geraes south to Rio de Janeiro (Parahyba Valley), São Paulo, and Matto Grosso.

18: Brazil (São Francisco, Rio Parnahyba, Maranhão, 1; Grajahú, Maranhão, 1; Codó, Cocos, Maranhão, 4; Carolina, Rio Tocantins, Maranhão, 3; Rio São Miguel, Goyaz, 4; Chapada, Matto Grosso, 2; Baurú, São Paulo, 1; Victoria, São Paulo, 1); Bolivia (Trinidad, Rio Mamoré, El Beni, 1).

**\**Mimus saturninus arenaceus* Chapman.<sup>1</sup> CHAPMAN'S  
MOCKINGBIRD.**

*Mimus arenaceus* Chapman, Auk, 7, p. 135, 1890—Bahia (type in the American Museum of Natural History, New York).

*Turdus orpheus* (not of Linnaeus) Spix, Av. Bras., 1, p. 71, pl. 71, fig. 1 (=juv.), 1824—part, Joazeiro, Rio São Francisco, Bahia (spec. in Munich Museum examined; cf. Hellmayr, Abhandl. Bayr. Akad. Wiss., 2. Kl., 22, No. 3, p. 619, 1906).

*Mimus saturninus* (not *Turdus saturninus* Lichtenstein) Sclater, Proc. Zool. Soc. Lond., 27, p. 344, 1859—part, coast region of Brazil; Sharpe, Cat. Bds. Brit. Mus., 6, p. 348, 1881—Brazil (descr.).

*Mimus saturninus arenaceus* Hellmayr, Abhandl. Bayr. Akad. Wiss., 2. Kl., 22, No. 3, p. 619, 1906—Bahia (crit.); Ihering and Ihering, Cat. Faun. Braz., 1, p. 327, 1907—Bahia; idem, Rev. Mus. Paul., 9, p. 485, 1914—Joazeiro, Bahia (nest and eggs descr.); Reiser, Denks. Math.-Naturwiss. Kl. Akad. Wiss. Wien, 76, p. 78, 1910—part, São João (near Bahia City), Joazeiro, and Sambaiba, Bahia; Hellmayr, Field Mus. Nat. Hist., Zool. Ser., 12, p. 251, 1929—Bahia (crit.; meas.).

*Range*.—Eastern Brazil, in State of Bahia east of the São Francisco River (São João and Santo Amaro, near Bahia City; Rio do

<sup>1</sup> *Mimus saturninus arenaceus* Chapman: In coloration similar to *M. s. frater*, but with much larger bill ( $21\frac{1}{2}$ –24, against  $18\frac{1}{2}$ –20 mm.).

*Material examined*.—Bahia: Bahia, 3; São João, 1; Santo Amaro, 2; Rio do Peixe, near Queimadas, 5; Joazeiro, 2; Palmeira, Rio São Francisco, 1.

Peixe near Queimadas; Joazeiro; Palmeira, near Sambaiba, Rio São Francisco).

7: Brazil (Santo Amaro, near Bahia City, 2; Rio do Peixe, near Queimadas, Bahia, 5).

**\**Mimus saturninus modulator* (Gould).<sup>1</sup> ARGENTINE  
MOCKINGBIRD.**

*Orpheus modulator* Gould, Proc. Zool. Soc. Lond., 4, p. 6, April, 1836—"in Fretu Magellanico," errore; Hellmayr (Nov. Zool., 21, p. 159, 1914) substitutes mouth of the Rio La Plata, Uruguay, as type locality (location of type, if still extant, unknown).

*Orpheus calandria* Lafresnaye and d'Orbigny, Syn. Av., 1, in Mag. Zool., 7, cl. 2, p. 17, 1837—Corrientes (type in Paris Museum examined); d'Orbigny, Voy. Amér. Mérid., Ois., p. 206, pl. 10, fig. 2, 1838—Maldonado, Montevideo, and Buenos Aires north to the Paraguayan frontier.

*Mimus herrmanni* Reichenow, Ornith. Monatsber., 16, p. 37, 1908—"Gebiet des oberen Pilkonayo"—upper Pilcomayo, southeastern Bolivia (type in Berlin Museum).

*Mimus orpheus* (not *Turdus orpheus* Linnaeus) Darwin, Zool. Beagle, 3, p. 60, 1839—banks of the La Plata, Uruguay.

*Mimus calandria* Burmeister, Syst. Uebers. Th. Bras., 3, p. 126, 1856—extreme south of Brazil in "Santa Catharina" and Rio Grande do Sul to Paraguay and "Chiquitos" [=Corrientes]; Sclater, Proc. Zool. Soc. Lond., 27, p. 343, 1859—part, Paraguay, Montevideo, and Buenos Aires; Burmeister, Journ. Orn., 8, p. 252, 1860—Paraná and Uruguay; idem, Reise La Plata St., 2, p. 475, 1861—Paraná (eggs descr.); Sclater and Salvin, Proc. Zool. Soc. Lond., 1868, p. 139—Conchitas, Buenos Aires; Doering, Period. Zool. Arg., 1, p. 274, 1874—Rio Guayquiraro, Corrientes; Durnford, Ibis, 1877, p. 167—Buenos Aires; Dalglish, Proc. Roy. Phys. Soc. Edin., 6, p. 244, 1881—Tala, Prov. Durazno, Uruguay (nest and eggs descr.); White, Proc. Zool. Soc. Lond., 1882, p. 593—Fuerte de Andalgala, Catamarca, and San José de Flores, Buenos Aires (nest and eggs descr.); idem, l.c., 1883, p. 37—Cosquin, Cordoba; Barrows, Bull. Nutt. Orn. Cl., 8, p. 85, 1883—Concepción del Uruguay, Entre Rios; Holmberg, Act.

<sup>1</sup> *Mimus saturninus modulator* (Gould) differs from *M. s. frater* by more blackish brown spotting of the pileum and upper back, on average more rufescent rump, and less conspicuous, frequently even absent, streaking of the flanks. Besides, the under parts lack the grayish suffusion of the chest, and the buffy tinge on the flanks is decidedly paler.

In the light of the more comprehensive material at present available I cannot see my way clear of maintaining the distinction between *modulator* and *calandria*, which I at one time advocated. While birds from Rio Grande do Sul, Uruguay, and Buenos Aires often have stouter, larger bills, exceptions to this rule are too numerous to warrant the recognition of more than one race.

*Additional material examined.*—Argentina, Province of Buenos Aires: Buenos Aires, 2; San Martino Monte, 1; La Soledad, Entre Rios, 1; Corrientes, 1; Tapia, Tucumán, 6; Corral, Santiago del Estero, 1; Salta, 1.—Paraguay: Bernalcué, near Asunción, 2; Paraguari, 1.—Uruguay: Nueva Helvetia, 1.—Brazil, Rio Grande do Sul: Taquara do Mundo Novo, 2; São Lourenço, 2.—Bolivia: San Francisco, 1; Caiza, 1.

Acad. Nac. Cienc. Cordoba, 5, (1), p. 80, 1884—Arroyo Tandileufú and Camino de Ayacucho, Tandil, Buenos Aires; Gibson, Ibis, 1885, p. 277—Paysandú, Uruguay; Lillo, Rev. Letr. Cienc. Soc., 3, p. 39, 1905—Rio Salí, Tucumán.

*Mimus modulator* Sclater, Proc. Zool. Soc. Lond., 27, p. 343, 1859—Rio Grande [do Sul] and Maldonado, Uruguay (monog.); Sharpe, Cat. Bds. Brit. Mus., 6, p. 347, 1881—part, southern Brazil, Maldonado and Paysandú, Uruguay; Berlepsch and Ihering, Zeits. Ges. Orn., 2, p. 16, 1885—Taquara do Mundo Novo, Rio Grande do Sul; Withington, Ibis, 1888, p. 462—Lomas de Zamora, Buenos Aires; Sclater and Hudson, Arg. Orn., 1, p. 5, 1888—Argentina (habits); Stempelmann and Schulz, Bol. Acad. Nac. Cordoba, 10, p. 397, 1890—Cordoba; Frenzel, Journ. Orn., 39, p. 118, 1891—Cordoba; Holland, Ibis, 1890, p. 425—Estancia Espartillar, Buenos Aires; idem, Ibis, 1892, p. 194—same locality (habits, nest); Aplin, Ibis, 1894, p. 162—Uruguay (habits); Salvadori, Boll. Mus. Zool. Torino, 10, No. 208, p. 2, 1895—Paraguari, Paraguay; idem, l.c., 12, No. 292, p. 4, 1897—Tala, Salta, and San Francisco and Caiza, Bolivia; Ihering, Ann. Est. Rio Grande do Sul, 16, p. 116, 1899—Mundo Novo and Jaguarão, Rio Grande do Sul; Bruch, Rev. Mus. La Plata, 11, p. 256, 1904—Valle de Lerma, Salta; Grant, Ibis, 1911, p. 83—Los Yngleses, Ajó, and Santa Elena, Entre Ríos; Tremoleras, El Hornero, 2, p. 22, 1920—Uruguay; Daguerre, l.c., 2, p. 270, 1922—Rosas, Buenos Aires; Serié and Smyth, l.c., 3, p. 52, 1923—Santa Elena, Entre Ríos; Pereyra, l.c., 3, p. 170, 1923—Zelaya, Buenos Aires; Wilson, l.c., 3, p. 360, 1926—Général López, Santa Fé.

*Mimus saturninus modulator* Ihering and Ihering, Cat. Faun. Braz., 1, p. 327, 1907 (range); Hartert and Venturi, Nov. Zool., 16, p. 162, 1909—Barracas al Sud (Buenos Aires), San Vicente (Santa Fé), and Tucumán; Dabbene, Anal. Mus. Nac. Hist. Nat. Buenos Aires, 18, p. 363, 1910—Argentina (range); Bertoni, Faun. Parag., p. 59, 1914—Paraguay; Hellmayr, Nov. Zool., 21, p. 160, 1914 (range, crit.); Hussey, Auk, 33, p. 396, 1916—Los Talas, near La Plata; Gibson, Ibis, 1918, p. 375—Cape San Antonio, Buenos Aires (habits, nest, and eggs); Wetmore, Bull. U. S. Nat. Mus., 133, p. 352, 1926—Buenos Aires (Lavalle), and Uruguay (San Vicente, Rio Negro); Friedmann, Bull. Mus. Comp. Zool., 68, p. 211, 1927—Santa Elena, Entre Ríos, and Rio de Gastone, Tucumán.

*Mimus saturninus calandria* Hellmayr, Nov. Zool., 21, pp. 159, 160, 1914—Corrientes, San Francisco and Caiza, Bolivian Chaco (crit., range); idem, l.c., 28, p. 240, 1921—Corrientes (crit.); Wetmore, Bull. U. S. Nat. Mus., 133, p. 352, 1926—Riacho Pilaga, Formosa, and west of Puerto Pinasco, Paraguay; Laubmann, Wissens. Erg. Deuts. Gran Chaco Exp., Vögel, p. 319, 1930—Formosa (San José, Tapikiolé, Lapango, Yunca Viejo) and Bolivia (Cuevo, Chuquisaca).

*Mimus modulator calandria* Dinelli, El Hornero, 1, p. 58, 1918—Tucumán (breeding habits).

*Mimus modulator modulator* Dabbene, El Hornero, 1, p. 241, 1919—Isla Martín García, Buenos Aires; Marelli, Mem. Min. Obr. Publ. for 1922–23, p. 654, 1924—Prov. Buenos Aires.



*Mimus patagonicus* (not *Orpheus patagonicus* Lafresnaye and d'Orbigny) Baer, Ornith., 12, p. 214, 1904—Tapia, Tucumán (spec. in Munich Museum examined); Lillo, Anal. Mus. Nac. Hist. Nat. Buenos Aires, 8, p. 172, 1902—Rio Salí, Tucumán.

**Range.**—Extreme southern Brazil, in State of Rio Grande do Sul; Uruguay; Paraguay; northern Argentina south to Cape San Antonio, Prov. Buenos Aires; and extreme southeastern Bolivia (Tarija and southern Chuquisaca).

10: Uruguay (Arazati, Dept. San José, 1; near Garzon, 1; fifteen miles north of San Vicente de Castillos, 1; southwest of Dolores, Dept. Soriano, 1); Argentina (Concepción, Tucumán, 2; Leales Alto, Tucumán, 1; Noetinger, near Marco Paz, Cordoba, 3).

**\*Mimus dorsalis** (Lafresnaye and d'Orbigny).<sup>1</sup> BOLIVIAN MOCKINGBIRD.

*Orpheus dorsalis* Lafresnaye and d'Orbigny, Syn. Av., 1, in Mag. Zool., 7, cl. 2, p. 18, 1837—"in Andis, rep. Boliviana" (types from Cochabamba, Bolivia, in Paris Museum examined); d'Orbigny, Voy. Amér. Mérid., Ois., p. 211, pl. 11, fig. 2, 1838—La Paz, Chuquisaca, and Cochabamba, Bolivia.

*Mimus dorsalis* Sclater, Proc. Zool. Soc. Lond., 27, p. 341, 1859—Cochabamba (monog.); idem, Cat. Coll. Amer. Bds., p. 9, 1862—Bolivia; Sclater and Salvin, Proc. Zool. Soc. Lond., 1879, p. 592—Cochabamba; Sharpe, Cat. Bds. Brit. Mus., 6, p. 341, 1881—Bolivia; Lönnberg, Ibis, 1903, p. 456—San Luis, Tarija, Bolivia; Ménégau, Bull. Soc. Philom. Paris, (10), 1, p. 210, 1909—Bolivia; Lillo, Apunt. Hist. Nat., 1, p. 43, 1909—Tilcara, Jujuy; Hartert and Venturi, Nov. Zool., 16, p. 163, 1909—Argentina; Dabbene, Anal. Mus. Nac. Hist. Nat. Buenos Aires, 18, p. 363, 1910—Tilcara, Jujuy; Dinelli, El Hornero, 1, p. 59, 1917—Jujuy (nest and eggs); Hellmayr, Nov. Zool., 28, p. 240, 1921—Cochabamba and Potosi (Bolivia) and Jujuy (crit.); Bangs, Bull. Mus. Comp. Zool., 70, p. 322, 1930—La Paz, Bolivia; Budin, El Hornero, 4, p. 410, 1931—Maimará, Jujuy.

**Range.**—Puna zone of Bolivia (La Paz; Cochabamba; Potosi; San Luis, Tarija) and extreme northwestern Argentina (Tilcara and Maimará, Prov. Jujuy).

1: Argentina (Tilcara, Jujuy, 1).

**\*Mimus triurus** (Vieillot). WHITE-BANDED MOCKINGBIRD.

*Turdus triurus* Vieillot, Nouv. Dict. Hist. Nat., nouv. éd., 20, p. 275, 1818—based on "Calandria tres colas," Azara, No. 275; Paraguay.

<sup>1</sup> *Mimus dorsalis* (Lafresnaye and d'Orbigny) is well distinguished from *M. triurus*, with which it agrees in the entirely white (six or eight) lateral rectrices, by larger size, much longer as well as more strongly arched bill, rufescent upper parts, white primary coverts, and the different disposition of the white wing area.

**Material examined.**—Bolivia: La Paz, 2; Cochabamba, 2 (the types); Potosi, 1.—Argentina, Jujuy: Tilcara, 1; Maimará, 2.

*Orpheus tricaudatus* Lafresnaye and d'Orbigny, Syn. Av., 1, in Mag. Zool., 7, cl. 2, p. 18, 1837—Chiquitos, eastern Bolivia (type in Paris Museum examined).

*Orpheus triurus* d'Orbigny, Voy. Amér. Mérid., Ois., p. 208, 1838—Mission de San José, Chiquitos.

*Mimus tricaudatus* Fraser, Proc. Zool. Soc. Lond., 11, p. 120, 1843—Mendoza.

*Mimus triurus* Sclater, Proc. Zool. Soc. Lond., 27, p. 341, 1859—Paraguay, Bolivia (Chiquitos), and Mendoza (monog.); Burmeister, Journ. Orn., 8, p. 252, 1860—Mendoza, Paraná, and Tucumán; idem, Reise La Plata St., 2, p. 475, 1861—Mendoza, Córdoba, Tucumán, and Paraná (eggs descr.); Pelzeln, Orn. Bras., 2, p. 94, 1868—Caité, near the Rio Jaurú, western Matto Grosso; Philippi, Anal. Univ. Chile, 31, p. 260, 1868—Santiago and Valdivia, Chile; Hudson, Proc. Zool. Soc. Lond., 1872, p. 539—Rio Negro (habits, song); Sclater, l.c., p. 548—Rio Negro; Sclater and Salvin, l.c., 1879, p. 592—San José, Chiquitos (ex d'Orbigny); Landbeck, Zool. Gart., 18, p. 247, 1877—Valdivia and Santiago, Chile; Sharpe, Cat. Bds. Brit. Mus., 6, p. 342, 1881—Chile, Patagonia, Bolivia, Brazil; White, Proc. Zool. Soc. Lond., 1882, p. 593—Flores, Prov. Buenos Aires; Sclater and Hudson, Arg. Orn., 1, p. 8, pl. 1, 1888—Argentina (habits); Burmeister, Anal. Mus. Nac. Hist. Nat. Buenos Aires, 3, p. 244, 1888—northern Patagonia; Stempelmann and Schulz, Bol. Acad. Nac. Ci. Córdoba, 10, p. 397, 1890—Córdoba; Frenzel, Journ. Orn., 39, p. 118, 1891—Córdoba; Allen, Bull. Amer. Mus. N. H., 3, p. 342, 1891—Piedra Blanca, Bolivia; Oustalet, Miss. Sci. Cap Horn, Zool., 6, p. B 279, 1891—Rio Negro; Holland, Ibis, 1893, p. 483—Santa Elena, Entre Ríos; Reed, Ibis, 1893, p. 595—Chile; Koslowsky, Rev. Mus. La Plata, 6, p. 289, 1895—Catamarca (rare); Reed, Anal. Univ. Chile, 93, p. 199, 1896—Chile; Salvadori, Boll. Mus. Zool. Torino, 10, No. 208, p. 2, 1895—Bahia Negra, Paraguay; idem, l.c., 12, No. 292, p. 4, 1897—Caiza, Bolivian Chaco; Gibson, Ibis, 1896, p. 583—Ajó, near Cape San Antonio, Prov. Buenos Aires; Holland, Ibis, 1897, p. 166—Santa Elena, Entre Ríos (nest and eggs descr.); Albert, Anal. Univ. Chile, 100, p. 893, 1898—Chile (monog.);<sup>1</sup> Lillo, Anal. Mus. Nac. Hist. Nat. Buenos Aires, 8, p. 172, 1902—Tucumán (winter); Lönnberg, Ibis, 1903, p. 470—Tatarenda, Tarija, Bolivia; Baer, Ornith., 12, p. 214, 1904—Santa Ana, Tucumán; Bruch, Rev. Mus. La Plata, 11, p. 256, 1904—Salta and Valle de Lerma, Salta; Lillo, Rev. Letr. Cienc. Soc., 3, p. 39, 1905—Tucumán; Hartert and Venturi, Nov. Zool., 16, p. 162, 1909—Argentina (eggs descr.); Dabbene, Anal. Mus. Nac. Hist. Nat. Buenos Aires, 18, p. 363, 1910—Argentina (range); Chubb, Ibis, 1910, p. 608—Sapucay, Paraguay; Grant, Ibis, 1911, p. 84—Monte Alto and Colonia Risso, Paraguay; Bertoni, Faun. Parag., p. 59, 1914—Puerto Bertoni, Paraguay; Reed, Av. Prov. Mendoza, p. 41, 1916—Lavalle, Mendoza; Gibson, Ibis, 1918, p. 377—Estancia Patio, near Cape San Antonio, Buenos Aires; Marelli, El Hornero, 1, p. 79, 1918—Curuzú Cuatiá, Corrientes; Sanzin, l.c., p. 151, 1918—Alto Verde and Rodríguez Peña, Mendoza; Marelli, l.c., p. 226, 1919—Corrientes (food); Reed, l.c., p. 272, 1919—Mendoza

<sup>1</sup> *Mimus albicaudus* "Philippi," quoted by Albert, appears to be an unpublished manuscript name.

(habits); Tremoleras, l.c., 2, p. 22, 1920—Canelones and Flores, Uruguay; Daguerre, l.c., p. 270, 1922—Rosas, Buenos Aires; Hellmayr, Nov. Zool., 28, p. 241, 1921—Chiquitos, Bolivia (crit., range); Serié and Smyth, El Hornero, 3, p. 52, 1923—Santa Elena, Entre Rios; Giacomelli, l.c., p. 67, 1923—La Rioja; Pereyra, l.c., p. 170, 1923—San Isidro, Buenos Aires; Marelli, Mem. Min. Obr. Publ. (Buenos Aires) for 1922–23, p. 653, 1924—Buenos Aires; Wilson, El Hornero, 3, p. 360, 1926—Dept. Général Lopez, Santa Fé; Wetmore, Bull. U. S. Nat. Mus., 133, p. 350, 1926—Santa Fé, Chaco, Formosa, Paraguay (Puerto Pinasco), Rio Negro (General Roca), Buenos Aires (Carhué), Pampa (Victorica), Mendoza (Tunuyán), and Tucumán (Tapia); Friedmann, Bull. Mus. Comp. Zool., 68, p. 211, 1927—Concepción, Tucumán, and Santa Elena, Entre Rios; Laubmann, Wissens. Erg. Deuts. Gran Chaco Exp., Vogel, p. 319, 1930—Estancia La Germania (Santa Fé), Fortín Esteros and Villa Montes (Tarija), and Cuevo (Chuquisaca), Bolivia; Naumburg, Bull. Amer. Mus. N. H., 60, p. 326, 1930—Caité, Matto Grosso; Budin, El Hornero, 4, p. 411, 1931—Maimará, Jujuy; Hellmayr, Field Mus. Nat. Hist., Zool. Ser., 19, p. 33, 1932—Valdivia and Santiago, Chile.

*Range*.—Eastern Bolivia and adjoining strip of the Brazilian State of Matto Grosso (Caité, near the Jaurú River; Urucúm de Corumbá); Paraguay; Uruguay; the whole of Argentina south to the Rio Negro. Accidental in Chile (Santiago and Valdivia).

11: Bolivia (Buenavista, Dept. Santa Cruz, 3; Brazil (Urucúm de Corumbá, Matto Grosso, 1); Argentina (Concepción, Tucumán, 4; Noetinger, near Marco Paz, Cordoba, 3).<sup>1</sup>

### Genus NESOMIMUS Ridgway<sup>2</sup>

*Nesomimus* Ridgway, Proc. U. S. Nat. Mus., 12, p. 102, 1890—type, by orig. desig., *Orpheus melanotis* Gould.

#### *Nesomimus trifasciatus* (Gould). THREE-BANDED MOCKINGBIRD.

*Orpheus trifasciatus* Gould, Proc. Zool. Soc. Lond., 5, p. 27, Nov., 1837—Galapagos Islands (type now in British Museum).

*Mimus trifasciatus* Gould, in Darwin, Zool. Beagle, 3, p. 62, pl. 16, 1839—Charles Island; Sclater, Proc. Zool. Soc. Lond., 27, p. 345, 1859—Charles Island (monog.); Sundevall, l.c., 1871, p. 127—Charles Island; Salvin, Trans. Zool. Soc. Lond., 9, p. 471, 1876—Charles Island; Sharpe, Cat. Bds. Brit. Mus., 6, p. 346, 1881—Charles Island.

<sup>1</sup>*Additional material examined*.—Bolivia: Chiquitos, 1.—Brazil: Caité, Matto Grosso, 1.—Paraguay: Bernalcué, near Asunción, 2.—Argentina: Arroytos, Neuquen, 1; La Banda, Santiago del Estero, 2.

<sup>2</sup>The treatment of this genus follows Mr. H. S. Swarth's excellent account as the most recent and most authoritative essay on the mockingbirds of the Galapagos Islands. Still it may be found to be more logical to regard even the strongly marked representatives of the group, viz., *N. trifasciatus*, *N. macdonaldi*, and *N. melanotis*, as conspecific with *N. parrulus*, since they all replace each other geographically on different islands.

*Nesomimus trifasciatus* Ridgway, Proc. U. S. Nat. Mus., 19, p. 483, 1897—Charles Island (monog.); Rothschild and Hartert, Nov. Zool., 6, p. 143, 1899—Gardner Island, near Charles Island (crit.); Snodgrass and Heller, Proc. Wash. Acad. Sci., 5, p. 358, 1904—Gardner Island; Ridgway, Bull. U. S. Nat. Mus., 50, Part 4, p. 247, 1907—Gardner Island, near Charles Island, and Champion Island (monog.); Gifford, Proc. Calif. Acad. Sci., (4), 2, p. 207, 1919—Gardner Island, near Charles Island, and Champion Island (nest and eggs); Swarth, Occas. Pap. Calif. Acad. Sci., 18, p. 114, 1931—Gardner and Champion islands, near Charles (crit.).

*Range*.—Galapagos Archipelago (Gardner and Champion islands, near Charles; formerly on Charles Island, where it now appears to be extinct).<sup>1</sup>

***Nesomimus macdonaldi* Ridgway. HOOD ISLAND MOCKINGBIRD.**

*Nesomimus macdonaldi* Ridgway, Proc. U. S. Nat. Mus., 12, p. 103, 1890—Hood Island (type in U. S. National Museum); idem, l.c., 19, p. 484, pl. 56, fig. 1, 1897—Hood Island (monog.); Rothschild and Hartert, Nov. Zool., 6, p. 143, 1899—Hood and Gardner Island, near Hood (crit.); idem, l.c., 9, p. 381, 1902—Gardner, off Hood; Snodgrass and Heller, Proc. Wash. Acad. Sci., 5, p. 359, 1904—Gardner Bay, Hood Island, and Gardner Island (crit.); Ridgway, Bull. U. S. Nat. Mus., 50, Part 4, p. 248, 1907—Hood Island and Gardner Island, near Hood (monog.); Gifford, Proc. Calif. Acad. Sci., (4), 2, p. 208, 1919—Gardner, near Hood, and Hood Island (habits, nest and eggs); Swarth, Occas. Pap. Calif. Acad. Sci., 18, p. 117, 1931—Hood Island and Gardner Island, near Hood.

*Range*.—Galapagos Archipelago (Hood Island and Gardner Island, near Hood).<sup>2</sup>

**\**Nesomimus melanotis* (Gould). CHATHAM ISLAND MOCKINGBIRD.**

*Orpheus melanotis* Gould, Proc. Zool. Soc. Lond., 5, p. 27, Nov., 1837—Galapagos Islands (type now in the British Museum).<sup>3</sup>

*Mimus melanotis* Gould, in Darwin, Zool. Beagle, 3, p. 62, pl. 17, 1839—part, Chatham Island; Sclater, Proc. Zool. Soc. Lond., 27, p. 345, 1859—part, Chatham Island (monog.); Sundevall, l.c., pp. 124, 126, 1871—part, Chatham Island; Salvin, Trans. Zool. Soc. Lond., 9, p. 471, 1876—part, Chatham Island; Sharpe, Cat. Bds. Brit. Mus., 6, p. 349, 1881—part, Chatham Island, spec. b.

*Nesomimus melanotis* Ridgway, Proc. U. S. Nat. Mus., 12, p. 102, 1890—part, Chatham Island.

<sup>1</sup> Its former occurrence on Charles Island is not established beyond doubt. All the (five) specimens examined are from Gardner Island.

<sup>2</sup> Nine specimens examined.

<sup>3</sup> Gould's original description and subsequent plate clearly refer to the Chatham Island bird, as has been pointed out by Swarth. *N. adamsi* thus becomes a synonym of *N. melanotis*, while the form of James, Jervis, and Bindloe, generally designated under the latter name, must be called *N. parvulus bindloe*.

Twelve specimens examined.

*Nesomimus adamsi* Ridgway, Proc. U. S. Nat. Mus., 17, p. 358, 1894—Chatham Island (type now in Tring Museum); idem, l.c., 19, p. 485, pl. 56, fig. 2, 1897—Chatham Island (monog.); Rothschild and Hartert, Nov. Zool., 6, p. 144, 1899—Chatham Island (crit.); idem, l.c., 9, p. 381, 1902—Chatham Island (nest and eggs); Rothschild, Bull. Brit. Orn. Cl., 12, p. 47, 1902 (nest and eggs descr.); Snodgrass and Heller, Proc. Wash. Acad. Sci., 5, p. 360, 1904—Chatham (monog.); Ridgway, Bull. U. S. Nat. Mus., 50, Part 4, p. 249, 1907—Chatham (monog.); Gifford, Proc. Calif. Acad. Sci., (4), 2, p. 219, 1919—Chatham (habits, nest).

*Nesomimus melanotis* Swarth, Occas. Pap. Calif. Acad. Sci., 18, p. 118, 1931—Chatham Island (crit.).

*Range*.—Galapagos Archipelago (Chatham Island).

1: Galapagos (Chatham Island, 1).

**\**Nesomimus parvulus parvulus* (Gould). ALBEMARLE ISLAND MOCKINGBIRD.**

*Orpheus parvulus* Gould, Proc. Zool. Soc. Lond., 5, p. 27, Nov., 1837—Galapagos Islands (type, from Albemarle Island, now in British Museum).

*Mimus parvulus* Gould, in Darwin, Zool. Beagle, 3, p. 63, pl. 18, 1839—Albemarle Island; Sclater, Proc. Zool. Soc. Lond., 27, p. 345, 1859—Albemarle (monog.); Salvin, Trans. Zool. Soc. Lond., 9, p. 472, 1876—Albemarle (monog.); Sharpe, Proc. Zool. Soc. Lond., 1877, p. 65—Albemarle (crit.); idem, Cat. Bds. Brit. Mus., 6, p. 350, 1881—Albemarle (monog.).

*Nesomimus parvulus* Ridgway, Proc. U. S. Nat. Mus., 12, p. 102, 1890—Albemarle (crit.); idem, l.c., 19, p. 491, pl. 56, fig. 1, 1897—Albemarle (monog.); Rothschild and Hartert, Nov. Zool., 9, p. 383, 1902—Albemarle and Narborough (crit., habits, nest, and eggs); Ridgway, Bull. U. S. Nat. Mus., 50, Part 4, p. 256, 1907—Albemarle and Narborough (monog.).

*Nesomimus parvulus parvulus* Rothschild and Hartert, Nov. Zool., 6, p. 146, 1899—Albemarle (crit.); Swarth, Occas. Pap. Calif. Acad. Sci., 18, p. 120, 1931—Albemarle, Narborough, and Indefatigable, also the Seymour Islands, Daphne, and perhaps Duncan Island (crit.).

*Nesomimus melanotis parvulus* Snodgrass and Heller, Proc. Wash. Acad. Sci., 5, p. 370, 1904—Albemarle and Narborough (crit.).

*Nesomimus affinis* Rothschild, Bull. Brit. Orn. Cl., 7, p. LIII, 1898—Narborough Island (type in Tring Museum).

*Nesomimus parvulus affinis* Rothschild and Hartert, Nov. Zool., 6, p. 146, 1899—Narborough (crit.).

*Mimus melanotis* (not *Orpheus melanotis* Gould) Sclater and Salvin, Proc. Zool. Soc. Lond., 1870, p. 323—Indefatigable; Sundevall, l.c., 1871, pp. 124, 126—part, Indefatigable (crit.); Salvin, Trans. Zool. Soc. Lond., 9, p. 471, 1876—part, Indefatigable; Sharpe, Cat. Bds. Brit. Mus., 6, p. 349, 1881—part, Indefatigable.

*Nesomimus melanotis* Ridgway, Proc. U. S. Nat. Mus., 12, p. 102, 1890—part, Indefatigable; idem, l.c., 19, p. 489, 1897—part, Indefatigable; Gifford, Proc. Calif. Acad. Sci., (4), 2, p. 212, 1919—part, Albemarle, Daphne, Duncan, Indefatigable, Narborough, and Seymour Islands (habits, nest).

*Nesomimus melanotis melanotis* Rothschild and Hartert, Nov. Zool., 6, p. 145, 1899—part, Indefatigable (crit.); idem, l.c., 9, p. 382, 1902—part, Indefatigable (crit., nest and eggs).

*Nesomimus melanotis dierythrus* Heller and Snodgrass, Condor, 3, p. 74, 1901—North Seymour Island, near Indefatigable (type in Stanford University); Snodgrass and Heller, Proc. Wash. Acad. Sci., 5, p. 367, 1904—Indefatigable and Seymour (crit.).

*Nesomimus dierythrus* Ridgway, Bull. U. S. Nat. Mus., 50, Part 4, p. 254, 1907—part, Indefatigable and Seymour (monog.).

**Range.**—Galapagos Archipelago (Albemarle, Narborough, and Indefatigable, the Seymour Islands, Daphne Island, accidental on Duncan Island).<sup>1</sup>

13: Galapagos Islands (Albemarle, Tagus Cove, 4; Mangrove Point, 1; Narborough, 1; Indefatigable, 7).

***Nesomimus parvulus barringtoni* Rothschild. BARRINGTON ISLAND MOCKINGBIRD.**

*Nesomimus carringtoni* (typographical error) Rothschild, Bull. Brit. Orn. Cl., 8, p. VII, 1898—Barrington Island (type in Tring Museum).

*Nesomimus melanotis carringtoni* Rothschild and Hartert, Nov. Zool., 6, p. 145, 1899—Barrington Island (crit.).

*Nesomimus melanotis barringtoni* Snodgrass and Heller, Proc. Wash. Acad. Sci., 5, p. 368, 1904—part, Barrington (crit.).

*Nesomimus barringtoni* Ridgway, Bull. U. S. Nat. Mus., 50, Part 4, p. 256, 1907—part, Barrington.

*Nesomimus parvulus barringtoni* Swarth, Occas. Pap. Calif. Acad. Sci., 18, p. 125, 1931—Barrington Island (crit.).

*Nesomimus melanotis* (not *Orpheus melanotis* Gould) Gifford, Proc. Calif. Acad. Sci., (4), 2, p. 212, 1919—part, Barrington (habits).

**Range.**—Galapagos Archipelago (Barrington Island).

***Nesomimus parvulus bindloei* Ridgway. BINDLOE ISLAND MOCKINGBIRD.**

*Nesomimus bindloei* Ridgway, Proc. U. S. Nat. Mus., 17, p. 358, 1894—Bindloe Island (type now in Tring Museum); idem, l.c., 19, p. 492, 1897—Bindloe (monog.); idem, Bull. U. S. Nat. Mus., 50, Part 4, p. 251, 1907—Bindloe (monog.).

*Nesomimus melanotis bindloei* Rothschild and Hartert, Nov. Zool., 6, p. 146, 1899—Bindloe (crit.); idem, l.c., 9, p. 383, 1902—Bindloe (nest and eggs).

<sup>1</sup> Swarth's arguments for the rejection of *N. p. affinis* from Narborough, and *N. m. dierythrus* from Indefatigable, are fully sustained by the limited material that we have been able to consult.

Altogether, thirty-seven specimens from the three principal islands have been examined.

*Nesomimus personatus bindloei* Snodgrass and Heller, Proc. Wash. Acad. Sci., 5, p. 365, 1904—Bindloe (crit.).

*Mimus melanotis* (not *Orpheus melanotis* Gould, 1837) Gould, in Darwin, Zool. Beagle, 3, p. 62, 1839—part, James Island; Sclater, Proc. Zool. Soc. Lond., 27, p. 345, 1859—part, James (crit.); Sundevall, l.c., pp. 124, 126, 1871—part, James (crit.); Salvin, Trans. Zool. Soc. Lond., 9, p. 471, 1876—part, James; Sharpe, Cat. Bds. Brit. Mus., 6, p. 349, 1881—part, James (spec. a, erroneously given as type).

*Nesomimus melanotis* Ridgway, Proc. U. S. Nat. Mus., 12, p. 102, 1890—part, James Island (crit.); idem, l.c., 19, p. 489, pl. 56, fig. 3, 1897—part, James and Jervis (crit.); idem, Bull. U. S. Nat. Mus., 50, Part 4, p. 253, 1907—part, James and Jervis (monog.); Gifford, Proc. Calif. Acad. Sci., (4), 2, p. 212, 1919—part, Bindloe, James, and Jervis (habits).

*Nesomimus melanotis melanotis* Rothschild and Hartert, Nov. Zool., 6, p. 145, 1899—part, Jervis and James (crit.); idem, l.c., 9, p. 382, 1902—part, Jervis and James; Snodgrass and Heller, Proc. Wash. Acad. Sci., 5, p. 369, 1904—James (crit.).

*Nesomimus parvulus bindloei* Swarth, Occas. Pap. Calif. Acad. Sci., 18, p. 126, 1931—James, Jervis, and Bindloe (monog.).

*Range*.—Galapagos Archipelago (James, Jervis, and Bindloe).<sup>1</sup>

### ***Nesomimus parvulus personatus* Ridgway. ABINGDON ISLAND MOCKINGBIRD.**

*Nesomimus personatus* Ridgway, Proc. U. S. Nat. Mus., 12, p. 104, 1890—Abingdon Island (type in U. S. National Museum); idem, l.c., 19, p. 488, pl. 56, fig. 5, 1897—Abingdon (monog.); idem, Bull. U. S. Nat. Mus., 50, Part 4, p. 252, 1907—Abingdon (monog.).

*Nesomimus melanotis personatus* Rothschild and Hartert, Nov. Zool., 6, p. 144, 1899—Abingdon (crit.); idem, l.c., 9, p. 382, 1902—Abingdon (habits, nest, and eggs).

*Nesomimus melanotis melanotis* (not *Orpheus melanotis* Gould) Snodgrass and Heller, Proc. Wash. Acad. Sci., 5, p. 363, 1904—Abingdon (crit.).

*Nesomimus melanotis* Gifford, Proc. Calif. Acad. Sci., (4), 2, p. 212, 1919—part, Abingdon (habits).

*Nesomimus parvulus personatus* Swarth, Occas. Pap. Calif. Acad. Sci., 18, p. 128, 1931—Abingdon (crit.).

*Range*.—Galapagos Archipelago (Abingdon Island).

### ***Nesomimus parvulus wenmani* Swarth.<sup>2</sup> WENMAN ISLAND MOCKINGBIRD.**

<sup>1</sup> After examining a series of specimens I am bound to agree with Mr. Swarth in referring birds from James, Jervis, and Bindloe to one form, which, though the name *melanotis* had long been misapplied to it, is clearly entitled to Ridgway's term.

<sup>2</sup> *Nesomimus parvulus wenmani* Swarth: A very slightly differentiated form, distinguishable from *N. p. bindloei* and *N. p. personatus* by somewhat paler upper parts and wider wing bars, from *N. p. hulli* by less pronounced dusky submalar streaks.

Eight specimens examined.

*Nesomimus parvulus wenmani* Swarth, Occas. Pap. Calif. Acad. Sci., 18, p. 129, 1931—Wenman Island (type in the Museum of the California Academy of Sciences, San Francisco).

*Nesomimus melanotis melanotis* (not *Orpheus melanotis* Gould) Rothschild and Hartert, Nov. Zool., 6, p. 145, 1899—part, Wenman (crit.); idem, l.c., 9, p. 382, 1902—part, Wenman (crit.).

*Nesomimus melanotis* Gifford, Proc. Calif. Acad. Sci., (4), 2, p. 212, 1919—part, Wenman.

*Nesomimus melanotis barringtoni* (not of Rothschild) Snodgrass and Heller, Proc. Wash. Acad. Sci., 5, p. 368, 1904—part, Wenman (crit.).

*Nesomimus barringtoni* Ridgway, Bull. U. S. Nat. Mus., 50, Part 4, p. 256, 1907—part, Wenman (monog.).

*Range*.—Galapagos Archipelago (Wenman Island).

### ***Nesomimus parvulus hulli* Rothschild. CULPEPPER ISLAND MOCKINGBIRD.**

*Nesomimus hulli* Rothschild, Bull. Brit. Orn. Cl., 7, p. LIII, 1898—Culpepper Island (type in Tring Museum); Ridgway, Bull. U. S. Nat. Mus., 50, Part 4, p. 254, 1907—Culpepper (monog.).

*Nesomimus melanotis hulli* Rothschild and Hartert, Nov. Zool., 6, p. 145, 1899—Culpepper (crit.).

*Nesomimus personatus hulli* Snodgrass and Heller, Proc. Wash. Acad. Sci., 5, p. 365, 1904—Culpepper (crit.).

*Nesomimus parvulus hulli* Swarth, Occas. Pap. Calif. Acad. Sci., 18, p. 130, 1931—Culpepper (crit.).

*Nesomimus melanotis* (not *Orpheus melanotis* Gould) Gifford, Proc. Calif. Acad. Sci., (4), 2, p. 212, 1919—part, Culpepper.

*Range*.—Galapagos Archipelago (Culpepper Island).<sup>1</sup>

### **\**Nesomimus parvulus bauri* Ridgway. TOWER ISLAND MOCKINGBIRD.**

*Nesomimus bauri* Ridgway, Proc. U. S. Nat. Mus., 17, p. 357, 1894—Tower Island (type now in Tring Museum); idem, l.c., 19, p. 492, pl. 56, fig. 4, 1897—Tower (monog.); idem, Bull. U. S. Nat. Mus., 50, Part 4, p. 255, 1907—Tower (monog.).

*Nesomimus melanotis bauri* Rothschild and Hartert, Nov. Zool., 6, p. 145, 1899—Tower (crit.).

*Nesomimus personatus bauri* Snodgrass and Heller, Proc. Wash. Acad. Sci., 5, p. 362, 1904—Tower (crit.).

*Nesomimus parvulus bauri* Swarth, Occas. Pap. Calif. Acad. Sci., 18, p. 131, 1931—Tower (crit.).

*Nesomimus melanotis* (not *Orpheus melanotis* Gould) Gifford, Proc. Calif. Acad. Sci., (4), 2, p. 212, 1919—part, Tower (habits).

*Range*.—Galapagos Archipelago (Tower Island).<sup>2</sup>

1: Galapagos (Tower Island, 1).

<sup>1</sup> Five specimens examined.

<sup>2</sup> Nine specimens examined.



Genus **OREOSOPTES** Baird

*Oreoscoptes* Baird, Rep. Expl. Surv. R. R. Pacif., 9, p. "XXXXV"=XXXV,<sup>1</sup> 1858—type, by monotypy, *Orpheus montanus* Townsend.

**\*Oreoscoptes montanus** (Townsend). SAGE THRASHER.

*Orpheus montanus* Townsend, Journ. Acad. Nat. Sci. Phila., 7, p. 192, 1837—"Plains of the Rocky Mountains"—Sandy Creek, lat. 42° N., long. 109° 30' W., Wyoming (type in Academy of Natural Sciences, Philadelphia; cf. Stone, Proc. Acad. Nat. Sci. Phila., 1899, p. 15).

*Oreoscoptes montanus* Baird, Rep. Expl. Surv. R. R. Pac., 9, p. 347, 1858; Ridgway, Bull. U. S. Nat. Mus., 50, Part 4, p. 259, 1907 (monog., full bibliog.); Grinnell, Univ. Calif. Pub. Zool., 32, p. 207, 1928—Lower California; van Rossem, Trans. San Diego Soc. N. H., 6, p. 276, 1931—Sonora.

*Oreoscoptes montanus* Townsend, Bull. Amer. Mus. Nat. Hist., 48, p. 23, 1923—Lower California.

**Range.**—Arid sagebrush plains and foothills of western United States. Breeds in Transition and Upper Austral zones from southern British Columbia, central Montana, and western Nebraska south to southern California and northern New Mexico; winters from southern California and mountains of central Texas to northern Mexico (Chihuahua and Tamaulipas), Cape San Lucas, and casually to Guadalupe Island.

33: Colorado (Yampa, 1; Egeria Park, 1; Cremling, 2); Utah (Ogden, 1; Fairfield City, 1); Nevada (Carson City, 2; Virginia City, 1); Arizona (Phoenix, 3; Tucson, 1); New Mexico (Deming, 12); Texas (Kerrville, 1; Laredo, 1; Ingram, 1; Falfurrias, 1; Corpus Christi, 4).

Genus **ALLENIA** Cory

*Allenia* Cory, Auk, 8, p. 42, 1891—type, by orig. desig., *Turdus montanus* Lafresnaye=*Muscicapa fusca* P. L. S. Müller.

**\*Allenia fusca** (P. L. S. Müller). SCALY-BREASTED THRASHER.

*Muscicapa fusca* P. L. S. Müller, Natursyst., Suppl., p. 170, 1776—evidently based on Daubenton, Pl. Enl., pl. 568, fig. 2—Martinique; Boddaert, Tabl. Pl. Enl., p. 33, 1783—based on the same.

*Turdus montanus* (not of Voigt, 1831, nor Audubon, 1838, nor Townsend, 1839) Lafresnaye, Rev. Zool., 7, p. 167, 1844—Guadeloupe (type now in Museum of Comparative Zoology, Cambridge, Mass.).

<sup>1</sup> The name is spelt *Oreoscoptes* on pp. 346, 347, where full descriptions of the generic and specific characters are given. The latest (fourth) edition of the A. O. U. Check List adopted, however, the spelling *Oreoscoptes* as having page priority.

### 340 FIELD MUSEUM OF NATURAL HISTORY—ZOOLOGY, VOL. XIII

*Turdus apicalis* (Lichtenstein MS.) Hartlaub, Syst. Orn. West-Afr., p. 76, 1857—"Senegal," errore; cf. Cabanis, Journ. Orn., 22, p. 350, 1874 (crit.; type in Berlin Museum).

*Margarops montanus* Sclater, Proc. Zool. Soc. Lond., 27, p. 336, 1859—Guadeloupe (monog.); Nicoll, Ibis, 1904, p. 559—Santa Lucia.

*Cichlherminia montana* Sharpe, Cat. Bds. Brit. Mus., 6, p. 330, 1881—Lesser Antilles (monog.).

*Margarops albiventris* Lawrence, Ann. N. Y. Acad. Sci., 4, p. 23, 1887—St. Andrews, Grenada (type in U. S. National Museum).

*Margarops montanus rufus* Cory, Auk, 5, p. 47, 1888—Dominica (type now in Field Museum).

*Allenia montana* Cory, Auk, 8, p. 42, 1891—Grenada to St. Eustatius; Verrill, Trans. Conn. Acad. Sci., 8, p. 345, 1892—Dominica (habits, nest, and eggs).

*Allenia albiventris* Riley, Smiths. Misc. Coll., 47, p. 288, 1904—Barbuda and Antigua (nomencl.); Clark, Proc. Bost. Soc. N. H., 32, p. 299, 1905—St. Vincent, Union Island and Carriacou (extinct), Grenada (habits).

*Allenia apicalis* Riley, Proc. Biol. Soc. Wash., 18, p. 186, 1905 (nomencl.); Ridgway, Bull. U. S. Nat. Mus., 50, Part 4, p. 262, 1907—Lesser Antilles (monog.); Noble, Bull. Mus. Comp. Zool., 60, p. 394, 1916—Guadeloupe (crit.); Bond, Proc. Acad. Nat. Sci. Phila., 80, p. 535, 1928—Santa Lucia, St. Vincent, and Dominica; Danforth, Auk, 47, p. 46, 1930—St. Eustatius.

*Allenia fusca* Bangs and Penard, Bull. Mus. Comp. Zool., 64, p. 395, 1920 (nomencl.); Bangs, l.c., 70, p. 325, 1930—Guadeloupe (note on type).

**Range.**—Lesser Antilles (islands of St. Eustatius, St. Christopher, Antigua, Barbuda, Guadeloupe, Desirade, Marie Galante, Dominica, Martinique, Santa Lucia, St. Vincent, Union,<sup>1</sup> Carriacou,<sup>1</sup> Grenada and Barbados).<sup>2</sup>

51: Lesser Antilles (St. Eustatius, 3; St. Christopher, 3; Antigua, 7; Guadeloupe, 7; Desirade, 1; Dominica, 5; Martinique, 6; Santa Lucia, 9; Grenada, 10).

#### Genus MARGAROPS Sclater

*Cichlhalopia* (not of Bonaparte, 1854) Bonaparte, Rev. Mag. Zool., (2), 9, p. 205, 1857—type, by orig. desig., *Turdus densirostris* Vieillot.

*Margarops* Sclater, Proc. Zool. Soc. Lond., 27, p. 335, 1859—new name for *Cichlhalopia* Bonaparte, 1857.

<sup>1</sup> Extinct on this island, according to Clark (Proc. Bost. Soc. N. H., 32, p. 300, 1905).

<sup>2</sup> While admitting that birds from Grenada (and apparently Barbados) are the darkest in the whole series, I agree with Noble that the variation from north to south is too gradual to warrant the subdivision of the species into two races.

**\*Margarops fuscatus fuscatus (Vieillot). PEARLY-EYED THRASHER.**

*Turdus fuscatus* Vieillot, Hist. Nat. Ois. Amér. Sept., 2, p. 1, pl. 57 bis, "1807"—"se trouve dans les grandes îles Antilles et particulièrement à Porto-Ricco et à Saint-Domingue"<sup>1</sup> (type in coll. of P. L. Vieillot).

*Colluricincla fusca* Gould, Proc. Zool. Soc. Lond., 4, p. 6, 1836—"vel in Novâ Zeelandiâ vel in Novâ Cambriâ Australi," errore (type formerly in coll. of Zoological Society of London).

*Margarops fuscatus* Sclater, Proc. Zool. Soc. Lond., 27, p. 335, 1859—"islands of 'Santo Domingo,'" Porto Rico, St. Croix, and St. Thomas (monog.); Cory, Bds. West Ind., p. 28, 1889—Inagua, Bahamas, Porto Rico, San Domingo (?), St. Thomas, St. Croix (monog.); Riley, Smiths. Misc. Coll., 47, p. 288, 1904—Barbuda and Antigua; idem, in Shattuck, The Bahama Islands, p. 364, 1905—Rum Cay, Watlings Island, Long Island, Mariguana, North Caicos, Grand Caicos, East Caicos, Bird Rock, Great Inagua.

*Cichlherminia fuscata* Sharpe, Cat. Bds. Brit. Mus., 6, p. 329, 1881—St. Croix, St. Thomas, and Great Inagua (monog.); Cory, Auk, 8, p. 43, 1891—Bahamas, "San Domingo," Porto Rico, St. Croix, and Virgin Islands.

*Margarops fuscatus fuscatus* Ridgway, Bull. U. S. Nat. Mus., 50, Part 4, p. 265, 1907—Bahamas, Jamaica (errore), Haiti (errore), Mona, Porto Rico, Virgin Islands, and Lesser Antilles south to Antigua (monog.); Todd and Worthington, Ann. Carnegie Mus., 6, pp. 427, 457, 1911—Rum Cay, Great Inagua, and Watlings Island; Wetmore, Auk, 33, p. 416, 1916—Vieques Island, Porto Rico; idem, l.c., 34, p. 61, 1917—Culebra Island, Porto Rico; idem, l.c., 35, p. 339, 1918—Desecheo Island, Porto Rico; Struthers, l.c., 40, p. 476, 1923—Porto Rico; Danforth, Journ. Dept. Agric. Porto Rico, 10, No. 1, p. 124, 1925—Cartagena Lagoon, Porto Rico; Wetmore, N. Y. Acad. Sci., Sci. Surv. Porto Rico and Virgin Islands, 9, Part 4, p. 486, 1927—Porto Rico and Virgin Islands (habits); Peters, Auk, 44, p. 537, 1927—Anguilla; Danforth, l.c., 47, p. 46, 1930—St. Martin and St. Eustatius; idem, Journ. Dept. Agric. Porto Rico, 14, No. 3, p. 126, 1930—St. Croix, St. Thomas, St. Jan, and Tortola, Virgin Islands; Beaty, l.c., p. 147, 1930—St. Croix; Wetmore and Swales, Bull. U. S. Nat. Mus., 155, p. 334, 1931—Haiti (occurrence questioned).

**Range.**—Southern Bahamas (Watlings Island, Rum Cay, Long Island, Mariguana, North Caicos, Grand Caicos, East Caicos, Bird Rock, Great Inagua); Mona; Desecheo; Porto Rico; Virgin Islands (Vieques, Culebra, Culebrita, St. Croix, St. Thomas, St. John, Tortola, Virgin Gorda); Lesser Antilles (Sombbrero,<sup>2</sup> St. Martin, St. Eustatius, Anguilla, St. Christopher, Barbuda, and Antigua).<sup>3</sup>

285: Bahamas (Watlings Island, 87; Caicos, 12; Inagua, 29); Mona Island, 31; Virgin Islands (St. Croix, 29; St. Thomas, 5;

<sup>1</sup> Santo Domingo is probably a mistake, since the Pearly-eyed Thrasher has never been found again on the island of Haiti.

<sup>2</sup> One record, probably a straggler.

<sup>3</sup> Not found on either Jamaica or Haiti, sometimes included in the range. The series from Antigua is unquestionably referable to typical *fuscatus*.

St. John, 2; Tortola, 7; Virgin Gorda, 13); Lesser Antilles (Anguilla, 7; St. Eustatius, 18; St. Christopher, 2; Antigua, 43).

**\**Margarops fuscatus densirostris* (Vieillot).<sup>1</sup> DARKER PEARLY-EYED THRASHER.**

*Turdus densirostris* Vieillot, Nouv. Dict. Hist. Nat., nouv. éd., 20, p. 232, 1818—Martinique (location of type not indicated).

*Margarops densirostris* Sclater, Proc. Zool. Soc. Lond., 27, p. 336, 1859—Guadeloupe and Martinique (monog.); Cory, Bds. West Ind., p. 29, 1889—Dominica, Martinique, Montserrat, Santa Lucia, and Guadeloupe (monog.).

*Cichlherminia densirostris* Sharpe, Cat. Bds. Brit. Mus., 6, p. 330, 1881—part, Dominica, Martinique, Guadeloupe, and Montserrat (excl. Antigua).

*Cichlherminia fuscata densirostris* Cory, Auk, 8, p. 43, 1891—part, Montserrat to Santa Lucia and Barbados; Verrill, Trans. Conn. Acad. Sci., 8, p. 346, 1892—Dominica (habits, nest, and eggs).

*Margarops fuscatus densirostris* Ridgway, Bull. U. S. Nat. Mus., 50, Part 4, p. 267, 1907—Montserrat, Guadeloupe, Dominica, Martinique, Santa Lucia, and Barbados (monog.); Clark, Proc. Bost. Soc. N. H., 32, p. 300, 1905—Barbados (one record); Noble, Bull. Mus. Comp. Zool., 60, p. 396, 1916—Guadeloupe (habits); Bond, Proc. Acad. Nat. Sci. Phila., 80, p. 535, 1928—Dominica and Santa Lucia (habits).

**Range.**—Lesser Antilles (islands of Montserrat, Guadeloupe, Desirade, Dominica, Martinique, Santa Lucia, and Barbados).<sup>2</sup>

31: Lesser Antilles (Guadeloupe, 2; Desirade, 12; Dominica, 7; Martinique, 4; Santa Lucia, 6).

**Genus *RAMPHOCINCLUS* Lafresnaye<sup>3</sup>**

*Ramphocinclus* Lafresnaye, Rev. Zool., 6, p. 66, 1843—type, by orig. desig., *Turdus brachyurus* Vieillot.

<sup>1</sup> *M. f. densirostris* is a very poor form, but when restricted to the southern Lesser Antilles it may be separated by darker brown upper parts and heavier, darker brown streaking below. These characters are, however, hardly apparent in the series from Desirade. We have not seen any specimens from Montserrat, which Sclater (Proc. Zool. Soc. Lond., 1879, p. 765) refers to the present form. On Barbados this thrasher appears to be merely an occasional straggler.

<sup>2</sup> A race of doubtful standing occurs on the Leeward Islands (Orquilla, Los Hermanos; Bonaire, Dutch West Indies). Hartert (Ibis, 1893, p. 327; Nov. Zool., 9, p. 297, 1902) insists that they belong to *fuscatus* rather than *densirostris*, but on reexamination the Bonaire specimens, upon which his remarks were based, prove to be in far too worn plumage to be of any use in deciding their subspecific affinity. Lowe (Ibis, 1909, p. 327) subsequently recorded *Margarops fuscatus* from Orquilla, Los Hermanos, which doubtless pertains to the same undetermined race.

<sup>3</sup> This genus has no representative on Guadeloupe. Earlier records of a species of *Ramphocinclus* from that island are erroneous.

*Legriocinclus* Lesson, Compl. Oeuvr. Buffon, éd. Lévêque, 20, (Descr. Mammif. et Ois.), p. 278, 1847—type, by monotypy, *Petrodroma mexicana* Lesson = *Turdus brachyurus* Vieillot.

*Rhamphocinclus* Scater, Proc. Zool. Soc. Lond., 27, p. 337, 1859—emendation.

**\**Ramphocinclus brachyurus brachyurus* (Vieillot). WHITE-BREASTED TREMBLER.**

*Turdus brachyurus* Vieillot, Nouv. Dict. Hist. Nat., nouv. éd., 20, p. 255, 1818—Martinique (type in coll. of P. L. Vieillot, probably lost).

*Petrodroma mexicanus* Lesson, Ann. Sci. Nat., (2), Zool., 9, p. 168, 1838—"Vera Cruz, Mexico," errore (type in coll. of R. P. Lesson).

(?) *Zoothera cinclaps* Bonaparte, Consp. Gen. Av., 1, p. 253, 1850—locality unknown (type in Leiden Museum); cf. Scater, Proc. Zool. Soc. Lond., 23, p. 213, 1855.

*R[h]amphocinclus brachyurus* Lafresnaye, Rev. Zool., 6, p. 66, 1843—"Saint-Domingue," errore (descr.); Scater, Proc. Zool. Soc. Lond., 27, p. 338, 1859—part, Martinique; Lawrence, Proc. U. S. Nat. Mus., 1, pp. 352, 486, 1879—Martinique (habits); Sharpe, Cat. Bds. Brit. Mus., 6, p. 325, 1881—part, Martinique; Cory, Bds. West Ind., p. 30, 1889—Martinique (monog.); Ridgway, Bull. U. S. Nat. Mus., 50, Part 4, p. 269, 1907—Martinique (monog., full bibliog.).

*Legriocinclus mexicanus* Lesson, Compl. Oeuvr. Buffon, éd. Lévêque, 20, (Descr. Mammif. et Ois.), p. 278, 1847—"Vera Cruz," errore (descr.).

*Cincoerthia brachyura* Scater, Proc. Zool. Soc. Lond., 23, "1855," p. 214, Feb., 1856 (crit., synon.).

**Range.**—Island of Martinique, Lesser Antilles.

7: Martinique.

**\**Ramphocinclus brachyurus sanctae-luciae* Cory.<sup>1</sup> SANTA LUCIA WHITE-BREASTED TREMBLER.**

*Rhamphocinclus sanctae-luciae* Cory, Auk, 4, p. 94, 1886—Santa Lucia (type now in Field Museum); idem, Bds. West Ind., p. 285, 1889—Santa Lucia (monog.); Bond, Proc. Acad. Nat. Sci. Phila., 80, p. 536, 1928—Le Marquis, Santa Lucia.

*Rhamphocinclus brachyurus* (not *Turdus brachyurus* Vieillot) Scater, Proc. Zool. Soc. Lond., 27, p. 338, 1859—part, Santa Lucia; idem, l.c., 1871, p. 268—Santa Lucia; Semper, l.c., 1872, p. 648—Santa Lucia (habits); Sharpe, Cat. Bds. Brit. Mus., 6, p. 325, 1881—part, Santa Lucia.

*Ramphocinclus sanctae-luciae* Ridgway, Bull. U. S. Nat. Mus., 50, Part 4, p. 270, 1907—Santa Lucia (monog., full bibliog.).

**Range.**—Island of Santa Lucia, Lesser Antilles.

8: Santa Lucia.

<sup>1</sup> This is merely a somewhat larger race with darker upper parts, especially on the forepart of the pileum.

Genus CINCLOCERTHIA Gray<sup>1</sup>

*Stenorhynchus* (not of Lamarck, 1819) Gould, Proc. Zool. Soc. Lond., 3, "1835," p. 186, pub. April, 1836—type, by monotypy, *Stenorhynchus ruficauda* Gould.

*Cinclocerthia* Gray, List Gen. Bds., p. 17, 1840—new name for *Stenorhynchus* Gould, preoccupied.

*L' Herminierus* Lesson, Rev. Zool., 6, p. 325, 1843—type, by monotypy, *L' Herminierus guadelupensis* Lesson = *Ramphocinclus tremulus* Lafresnaye.

\**Cinclocerthia ruficauda pavida* Ridgway. ST. CHRISTOPHER TREMBLER.

*Cinclocerthia ruficauda pavida* Ridgway, Smiths. Misc. Coll., 47, p. 113, 1904—St. Christopher (type in U. S. National Museum); idem, Bull. U. S. Nat. Mus., 50, Part 4, p. 275, 1907—St. Christopher, St. Eustatius, Saba, Montserrat, Nevis, and Barbuda (monog.).

*Cinclocerthia ruficauda* (not *Stenorhynchus ruficauda* Gould) Sclater, Proc. Zool. Soc. Lond., 23, p. 214, 1855—part, Nevis; idem, l.c., 27, p. 338, 1859—part, Nevis; Lawrence, Proc. U. S. Nat. Mus., 1, p. 239, 1878—Barbuda; idem, l.c., 1, p. 486, 1879—part, Barbuda; Sharpe, Cat. Bds. Brit. Mus., 6, p. 323, 1881—part, Barbuda and Nevis; Grisdale, Ibis, 1886, p. 486—Montserrat; Cory, Auk, 8, p. 48, 1891—St. Christopher.

*Range*.—Islands of St. Christopher, St. Eustatius, Saba, Montserrat, Nevis, and Barbuda, Lesser Antilles.<sup>2</sup>

6: St. Christopher.

\**Cinclocerthia ruficauda tremula* (Lafresnaye). GUADELOUPE TREMBLER.

*Ramphocinclus tremulus* Lafresnaye, Rev. Zool., 6, p. 67, 1843—Guadeloupe (type now in Museum of Comparative Zoology, Cambridge, Mass.).

*L' Herminierus guadelupensis* and *L' Herminierus infaustus* Lesson, Rev. Zool., 6, p. 325, 1843—Guadeloupe (type in coll. of R. P. Lesson).

*Thriothorus l' Herminieri* Lesson, Rev. Zool., 6, p. 326, 1843—substitute name.

*Cinclocerthia ruficauda* (not *Stenorhynchus ruficauda* Gould) Sclater, Proc. Zool. Soc. Lond., 23, p. 214, 1855—part, Guadeloupe; idem, l.c., 27, p. 338, 1859—part, Guadeloupe; Lawrence, Proc. U. S. Nat. Mus., 1, p. 453, 1879—Guadeloupe; idem, l.c., p. 486, 1879—part, Guadeloupe; Sharpe, Cat. Bds. Brit. Mus., 6, p. 323, 1881—part, Guadeloupe; Cory, Bds. West Ind., p. 31, 1889—part, Guadeloupe.

*Cinclocerthia ruficauda tremula* Ridgway, Bull. U. S. Nat. Mus., 50, Part 4, p. 274, 1907—Guadeloupe (monog.); Noble, Bull. Mus. Comp. Zool.,

<sup>1</sup> The genus *Cinclocerthia* is equivalent to what Kleinschmidt calls a "Formenkreis." The various "species," which differ merely in proportions of bill and intensity of coloration, are strictly geographical representatives. Although specification has proceeded much farther in the southern islands, they should all be treated trinomially, according to my conception of natural specific groups.

<sup>2</sup> Specimens seen from St. Christopher only.

60, p. 392, 1916—Guadeloupe (habits); Bangs, l.c., 70, p. 325, 1930—Guadeloupe (note on type).

*Range*.—Islands of Guadeloupe and Grande Terre, Lesser Antilles. 6: Lesser Antilles (Grande Terre, 2; Guadeloupe, 4).

***Cinclocerthia ruficauda sola* Bangs.<sup>1</sup> BANGS'S TREMBLER.**

*Cinclocerthia ruficauda sola* Bangs, Proc. N. Engl. Zool. Cl., 11, p. 40, 1929—locality unknown, supposed to be some small island near Guadeloupe, possibly Desirade (type in Museum of Comparative Zoology, Cambridge, Mass.); idem, Bull. Mus. Comp. Zool., 70, p. 325, 1930 (note on type).

*Range*.—Lesser Antilles (some small island near Guadeloupe, possibly Desirade).

**\**Cinclocerthia ruficauda ruficauda* (Gould). DOMINICAN TREMBLER.**

*Stenorhynchus ruficauda* Gould, Proc. Zool. Soc. Lond., 3, "1835," p. 186, pub. April, 1836—locality unknown (type apparently lost).<sup>2</sup>

*Cinclocerthia ruficauda* Lawrence, Proc. U. S. Nat. Mus., 1, p. 52, 1878—Dominica; idem, l.c., 1, p. 486, 1879—part, Dominica; Sharpe, Cat. Bds. Brit. Mus., 6, p. 323, 1881—part, Dominica; Sclater, Proc. Zool. Soc. Lond., 1889, p. 326—Dominica; Cory, Bds. West Ind., p. 31, 1889—part, Dominica; Verrill, Trans. Conn. Acad. Sci., 8, p. 343, 1892—Dominica (habits, nest, and eggs).

*Cinclocerthia ruficauda ruficauda* Ridgway, Bull. U. S. Nat. Mus., 50, Part 4, p. 273, 1907—Dominica (monog., full bibliog.); Bond, Proc. Acad. Nat. Sci. Phila., 80, p. 536, 1928—Dominica.

*Range*.—Island of Dominica, Lesser Antilles.

2: Dominica.

**\**Cinclocerthia ruficauda tenebrosa* Ridgway.<sup>3</sup> ST. VINCENT TREMBLER.**

*Cinclocerthia ruficauda tenebrosa* Ridgway, Smiths. Misc. Coll., 47, p. 112, 1904—St. Vincent (type in U. S. National Museum); idem, Bull. U. S.

<sup>1</sup> *Cinclocerthia ruficauda sola* Bangs: Not unlike *C. r. pavid*a in coloration, but with a much longer bill; differing from *C. r. tremula* by paler, more russet brown upper, and much paler, wood brown to isabella-color under parts. Wing, 108; tail, 84; tars., 30; bill to base of forehead, 44; exposed culmen, 37 mm. (Bangs, l.c.).

Known from a single specimen, erroneously labeled "Guadeloupe," in the Lafresnaye Collection.

<sup>2</sup> The type being lost, the name *ruficauda* has somewhat arbitrarily been restricted by authors to the Dominican form. The passage, "subtus brunnescentinereus, in rufo-brunneum ad latera vergens," in Gould's description, does not too well agree with the present race.

<sup>3</sup> The close similarity of this race to *C. r. ruficauda*, of Dominica, is remarkable in view of their ranges being separated by the islands of Martinique and Santa Lucia, inhabited by gray-backed and white-bellied forms.

Nat. Mus., 50, Part 4, p. 274, 1907—St. Vincent (monog., full bibliog.); Clark, Proc. Bost. Soc. N. H., 32, pp. 218, 298, 1905—St. Vincent; Bond, Proc. Acad. Nat. Sci. Phila., 80, p. 536, 1928—St. Vincent.

*Cinclocerthia walleri* Thayer, The Sentry [newspaper], Kingstown, St. Vincent, March 13, 1925—St. Vincent (fide Bangs, Proc. N. Engl. Zool. Cl., 11, p. 41, 1930).

*Cinclocerthia ruficauda* (not *Stenorhynchus ruficauda* Gould) Lawrence, Proc. U. S. Nat. Mus., 1, p. 187, 1878—St. Vincent; idem, l.c., p. 486, 1879—part, St. Vincent; Lister, Ibis, 1880, p. 39—St. Vincent; Sharpe, Cat. Bds. Brit. Mus., 6, p. 323, 1881—part, St. Vincent.

*Range*.—Island of St. Vincent, Lesser Antilles.<sup>1</sup>

5: St. Vincent.

**\**Cinclocerthia ruficauda gutturalis* (Lafresnaye). GRAY-BREASTED TREMBLER.**

*Ramphocinclus gutturalis* Lafresnaye, Rev. Zool., 6, p. 67, 1843—"des Antilles" (type now in Museum of Comparative Zoology, Cambridge, Mass.).

*Cinclocerthia gutturalis* Selater, Proc. Zool. Soc. Lond., 27, p. 338, 1859—Martinique (monog.); Selater and Salvin, Exot. Orn., p. 23, pl. 12, 1867—Martinique; Lawrence, Proc. U. S. Nat. Mus., 1, pp. 351, 486, 1879—Martinique (habits); Sharpe, Cat. Bds. Brit. Mus., 6, p. 324, 1881—Martinique; Cory, Bds. West Ind., p. 32, 1889—Martinique (monog.); Ridgway, Bull. U. S. Nat. Mus., 50, Part 4, p. 277, 1907—Martinique (monog.); Bangs, Bull. Mus. Comp. Zool., 70, p. 324, 1930 (note on type).

*Range*.—Island of Martinique, Lesser Antilles.

8: Martinique.

**\**Cinclocerthia ruficauda macrorhyncha* Selater. SANTA LUCIA TREMBLER.**

*Cinclocerthia macrorhyncha* Selater, Proc. Zool. Soc. Lond., 1866, p. 320—Santa Lucia (type in Paris Museum); Selater and Salvin, Exot. Orn., p. 21, pl. 11, 1867—Santa Lucia; Selater, Proc. Zool. Soc. Lond., 1871, p. 268—Santa Lucia; Semper, l.c., 1872, p. 648—Santa Lucia (habits); Allen, Bull. Nutt. Orn. Cl., 5, p. 166, 1880—Santa Lucia; Sharpe, Cat. Bds. Brit. Mus., 6, p. 325, 1881—Santa Lucia (monog.); Selater, Proc. Zool. Soc. Lond., 1889, p. 395—Santa Lucia; Cory, Bds. West Ind., p. 31, 1889—Santa Lucia (monog.); Ridgway, Bull. U. S. Nat. Mus., 50, Part 4, p. 276, 1907—Santa Lucia (monog.); Bond, Proc. Acad. Nat. Sci. Phila., 80, p. 536, 1928—Santa Lucia.

*Range*.—Island of Santa Lucia, Lesser Antilles.

8: Santa Lucia.

<sup>1</sup> About the possible occurrence of a member of this genus on Barbados, see Clark, Proc. Bost. Soc. N. H., 32, p. 298, 1905.



Genus **DONACOBIUS** Swainson

*Donacobius* Swainson, Zool. Ill., (2), 2, text to pl. 72, 1831—type, by monotypy,  
*Donacobius vociferans* Swainson=*Turdus atricapillus* Linnaeus.

**\*Donacobius atricapillus atricapillus (Linnaeus). BLACK-CAPPED MOCKING-THRUSH.**

*Turdus atricapilla* (sic) Linnaeus, Syst. Nat., 12th ed., 1, p. 295, 1766—based on “Le Merle à teste noire du Cap de Bonne Espérance” Brisson, Orn., 6, App., p. 47, pl. 3, fig. 2, Cape of Good Hope, errore; eastern Brazil substituted as type locality by Berlepsch and Hartert (Nov. Zool., 9, p. 4, 1902).

*Gracula longirostra* Pallas, Spic. Zool., fasc. 6, p. 5, pl. 2, fig. 2, 1769—Surinam.

*Turdus cyaneus* P. L. S. Müller, Natursyst., Suppl., p. 145, 1776—based on “Merle à tête noire, du Cap de Bonne Espérance” Daubenton, Pl. Enl., pl. 392.

*Oriolus Jacapani* Gmelin, Syst. Nat., 1, (1), p. 385, 1788—based on “Jacapani” Marcgrave, Hist. Nat. Bras., p. 212; northeastern Brazil.

*Turdus brasiliensis* Gmelin, Syst. Nat., 1, (2), p. 831, 1789—based upon “Yellow-bellied Thrush” Latham, Gen. Syn. Bds., 2, (1), p. 42; Brazil.

*Turdus pratensis* Vieillot, Nouv. Dict. Hist. Nat., nouv. éd., 20, p. 286, 1818—based on “Le Merle des Savannes” Sonnini, in Buffon, Hist. Nat. Ois., 46, p. 266; French Guiana.

*Donacobius vociferans* Swainson, Zool. Ill., (2), 2, pl. 72, 1831—Pernambuco, Brazil; Schomburgk, Reisen Brit. Guiana, 2, p. 484, 1848—Hubaba, British Guiana (habits).

*Turdus brasiliensis* Wied, Reise Bras., 2, pp. 93, 148, 1821—Rio Itahype and Rio Catolé, Bahia, Brazil (cf. Allen, Bull. Amer. Mus. N. H., 2, p. 213, 1889).

*Mimus brasiliensis* Wied, Beitr. Naturg. Bras., 3, (2), p. 662, 1831—Prov. Bahia.

*Donacobius brasiliensis* d'Orbigny, Voy. Amér. Mérid., Ois., p. 213, 1838—Corrientes, Argentina.

*Donacobius atricapillus* Cabanis, in Schomburgk, Reisen Brit. Guiana, 3, p. 674, “1848”—coast region of British Guiana; Bonaparte, Bull. Soc. Linn. Normandie, 2, p. 31, 1857—Cayenne; Burmeister, Syst. Uebers. Th. Bras., 3, p. 129, 1856—Nova Friburgo (habits); idem, Journ. Orn., 8, p. 252, 1860—Paraná, Argentina; idem, Reise La Plata St., 2, p. 475, 1861—the eastern districts of Argentina, especially the Banda Oriental; Selater and Salvin, Proc. Zool. Soc. Lond., 1866, p. 178—Nauta, Peru; idem, l.c., 1867, p. 568—Pará and upper Amazon; Pelzeln, Orn. Bras., 1, p. 49, 1868—Peixeira (Rio de Janeiro), Rio Paraná (São Paulo), Araguay (Goyaz), Cuyabá and Villa Bella (Matto Grosso), Borba (Rio Madeira), Pará, and Forte do Rio Branco, Brazil; Selater and Salvin, Proc. Zool. Soc. Lond., 1869, p. 251—Lake of Valencia, Venezuela; idem, l.c., 1873, p. 256—Nauta and Santa Cruz, Peru; Layard, Ibis, 1873, p. 277—Rio Acará, Pará; Cabanis, Journ. Orn., 22, p. 83, 1874—Cantagallo, Rio de Janeiro; Allen, Bull. Essex Inst., 8, p. 78, 1876—Santarém; Sharpe, Cat.

Bds. Brit. Mus., 6, p. 364, 1881 (monog.); Forbes, Ibis, 1881, p. 328—Pernambuco; Taczanowski, Orn. Pér., 1, p. 502, 1884—Nauta, Pebas, Santa Cruz, Peru; Salvin, Ibis, 1885, p. 199—British Guiana (ex Schomburgk); Sclater and Hudson, Arg. Orn., 1, p. 13, 1888—Corrientes (ex d'Orbigny); Berlepsch, Journ. Orn., 37, p. 292, 1889—Sarayacu, Peru; Riker, Auk, 7, p. 137, 1890—Santarém; Allen, Bull. Amer. Mus. N. H., 3, p. 343, 1891—Corumbá, Matto Grosso; Salvadori, Boll. Mus. Zool. Torino, 10, No. 208, p. 3, 1895—Colonia Risso, Paraguay, and Corumbá, Matto Grosso; Kerr, Ibis, 1901, p. 222—Paraguayan Chaco; Berlepsch and Hartert, Nov. Zool., 9, p. 4, 1902—Mato River, Venezuela; Ménégau, Bull. Mus. Hist. Nat. Paris, 10, p. 115, 1904—St. Georges d'Oyapock, French Guiana; Ihering, Rev. Mus. Paul., 6, p. 432, 1905—Rio Jurua; idem, Cat. Faun. Braz., 1, p. 328, 1907—São Paulo (Jaboticabal, Barretos, Itapura), Rio Jurua, and Puerto Cabello, Venezuela; Hellmayr, Nov. Zool., 14, p. 41, 1907—Teffé, Rio Solimões; idem, l.c., 17, p. 261, 1910—Borba (ex Pelzeln); Berlepsch, l.c., 15, pp. 106, 316, 1908—Cayenne and St. Georges d'Oyapock, French Guiana; Hagmann, Zool. Jahrb. (Syst.), 26, p. 24, 1907—Mexiana; Snethlage, Journ. Orn., 56, p. 9, 1908—Rio Purús (Monte Verde, Bom Lugar); Beebe, Zoologica (N.Y.), 1, p. 99, 1909—Guanoco, Orinoco Delta, Venezuela; Dabbene, Anal. Mus. Nac. Hist. Nat. Buenos Aires, 18, p. 363, 1910—Corrientes and Misiones; Penard, Vog. Guyana, 2, p. 516, 1910—Surinam (habits); Ménégau, Rev. Franc. d'Orn., 2, p. 8, 1911—Tocache, Peru; Grant, Ibis, 1911, p. 85—Boca de Homiguera, near Corumbá, Matto Grosso; Hellmayr, Abhandl. Math.-Phys. Kl. Bayr. Akad. Wiss., 26, No. 2, pp. 86, 118, 1912—Pará, Rio Acará, and Mexiana; idem and Seilern, Arch. Naturg., 78, A, Heft 5, p. 164, 1912—San Esteban, Venezuela; Bertoni, Faun. Parag., p. 59, 1914—Salto Guirá, Paraguay; Stone, Proc. Acad. Nat. Sci. Phila., 65, p. 207, 1913—Manimo River, La Pedrita (Rio Uracoa), and Guinipa, Delta Superior del Orinoco, Venezuela; Snethlage, Journ. Orn., 61, p. 518, 1913—lower Amazonia (ecology); idem, Bol. Mus. Goeldi, 8, p. 494, 1914—Pará, Peixe-Boi, Rio Guamá (Santa Maria do São Miguel), Cussary, Rio Purús, Mexiana, Arumanduba, Monte Alegre, and Maranhão; Hellmayr, Nov. Zool., 28, p. 242, 1921—Corrientes; Chubb, Bds. Brit. Guiana, 2, p. 373, 1921—British Guiana; Stone, Proc. Acad. Nat. Sci. Phila., 80, p. 172, 1928—Pará and Ourém, Brazil.

*Donacobius atricapillus atricapillus* Cherrie, Sci. Bull., Mus. Brookl. Inst., 2, p. 142, 1916—Mato River, Caura, and Guanoco, Orinoco Delta; Bangs and Penard, Bull. Mus. Comp. Zool., 62, p. 80, 1918—Paramaribo (juv. descr.); Griscom, Auk, 40, p. 216, 1923 (range, crit.); Wetmore, Bull. U. S. Nat. Mus., 133, p. 354, 1926—Puerto Pinasco, Paraguay; Hellmayr, Field Mus. Nat. Hist., Zool. Ser., 12, p. 250, 1931—Maranhão (Turyassú and Ponto, Canella) and Goyaz (Philadelphia); Naumburg, Bull. Amer. Mus. N. H., 60, p. 328, 1930—Fazenda do São João, Matto Grosso, and Calama, Rio Madeira.

*Donacobius atricapillus alborittatus* (not of Lafresnaye and d'Orbigny) Chapman, Bull. Amer. Mus. N. H., 36, p. 530, 1917—part, Villavicencio and La Morelia, eastern Colombia.

*Range*.—Northeastern Argentina, in provinces of Corrientes and Misiones; Paraguay; practically the whole of Brazil;<sup>1</sup> French, Dutch, and British Guiana; Venezuela (excepting the extreme western section in State of Zulia); eastern Colombia; eastern Peru.<sup>2</sup>

11: Brazil (Descalvados, Matto Grosso, 1; Aracatuba, São Paulo, 1; Tury-assú, Maranhão, 1; Ponto, Canella, Maranhão, 2; Philadelphia, Goyaz, 1; Itacoatiará, Amazon, 1; Serra da Lua, near Boa Vista, Rio Branco, 1); British Guiana (Georgetown, 2); Venezuela (Puerto Cabello, 1).

**\**Donacobius atricapillus brachypterus* Madarász.<sup>3</sup> SHORT-WINGED MOCKING-THRUSH.**

*Donacobius brachypterus* Madarász, Ornith. Monatsber., 21, p. 22, 1913—"Aracatuca" [=Aracataca], Santa Marta region, Colombia (type in Hungarian National Museum, Budapest, examined).

*Donacobius atricapillus* (not *Turdus atricapilla* Linnaeus) Wyatt, Ibis, 1871, p. 321—Lake Paturia, Magdalena; Allen, Bull. Amer. Mus. N. H., 13, p. 180, 1900—Cienaga, Magdalena.

*Donacobius atricapillus brachypterus* Todd and Carriker, Ann. Carnegie Mus., 14, p. 394, 1922—Fundación, Trojas de Cataca, and Tucurínca, Santa Marta (crit.); Griscom, Auk, 40, p. 216, 1923—eastern Panama and northern Colombia (crit.); Darlington, Bull. Mus. Comp. Zool., 71, p. 406, 1931—Aracataca, Rio Frío, and Cienaga, Magdalena (habits).

*Donacobius atricapillus albo-vittatus* (not of Lafresnaye and d'Orbigny) Chapman, Bull. Amer. Mus. N. H., 36, p. 530, 1917—part, Atrato River and Magdalena River (Cienaga, Algodonal, Malena, Honda), Colombia, and El Real, eastern Panama.

<sup>1</sup> No records from the extreme southern section (states of Paraná to Rio Grande do Sul).

<sup>2</sup> I have not been able to make out any geographic variation within the area above circumscribed. Three specimens from Peru are perhaps slightly more blackish above than the average from Brazil and Guiana, but they are in exceedingly fresh plumage. Birds from Puerto Cabello are provisionally referred here rather than to *D. a. brachypterus*, though this disposition might have to be modified with the receipt of a more adequate series.

*Additional material examined*.—Argentina: Argentine Chaco, 1.—Paraguay: Villa Concepción, 1.—Brazil: Matto Grosso (Cuyabá, Villa Bella, Cuyabá), 6; Araguay, Goyaz, 1; Rio Paraná, São Paulo, 1; Bahia, 7; Borba, Rio Madeira, 2; Pará, 1; Forte do São Joaquim, Rio Branco, 2.—Surinam: near Paramaribo, 26.—Peru: Samiria, 1; Parinari Canyon, Loreto, 2.—Venezuela: Puerto Cabello, Carabobo, 2.

<sup>3</sup> *Donacobius atricapillus brachypterus* Madarász: Closely similar to *D. a. atricapillus*, but slightly smaller; rump paler, fulvous rather than cinnamonaceous; back and under parts on average lighter.

This is a rather unsatisfactory race, all of the characters being bridged over by individual variation. A series from Encontrados, Zulia, while somewhat more deeply colored than Colombian specimens, seems better assigned to the present form than to typical *atricapillus*.

*Range*.—Eastern Panama; northern Colombia (Atrato River; Magdalena River up to Honda); northwestern Venezuela (Catatumbo River and Encontrados, south of Lake Maracaibo, Zulia).

12: Colombia (Atrato River, 2; Fundación, Santa Marta, 2); Venezuela (Catatumbo River, Zulia, 1; Encontrados, Zulia, 7).

***Donacobius atricapillus albo-vittatus* Lafresnaye and d'Orbigny.<sup>1</sup>**

**WHITE-BROWED MOCKING-THRUSH.**

*Donacobius albo-vittatus* Lafresnaye and d'Orbigny, Syn. Av., 1, in Mag. Zool., 7, cl. 2, p. 19, 1837—Chiquitos and Guarayos, eastern Bolivia (type in Paris Museum examined); d'Orbigny, Voy. Amér. Mérid., Ois., p. 213, 1838—near San José, Chiquitos; Baird, Rev. Amer. Bds., 1, p. 58, 1864—Bolivia (crit.); Sclater and Salvin, Proc. Zool. Soc. Lond., 1879, p. 592—San José (ex d'Orbigny); Sharpe, Cat. Bds. Brit. Mus., 6, p. 365, 1881—Bolivia (monog.); Hellmayr, Nov. Zool., 21, p. 158, 1914—Guarayos, Bolivia (crit.); idem, l.c., 28, p. 242, 1921—Chiquitos and Guarayos, Bolivia (crit.); Griscom, Auk, 40, p. 214, 1923—Todos Santos, Bolivia (crit.).

*Donacobius atricapillus albo-vittatus* Laubmann, Wissens. Erg. Deuts. Gran Chaco Exp., Vögel, p. 318, 1930—Curiche de San Ramon, Santa Cruz, Bolivia (crit.).

*Donacobius albo-lineatus* d'Orbigny, Voy. Amér. Mérid., Ois., pl. 12, fig. 1; Bonaparte, Consp. Gen. Av., 1, p. 277, 1850—Bolivia (ex d'Orbigny); idem, Compt. Rend. Acad. Sci., Paris, 38, p. 58, 1854 (crit.).

*Range*.—Bolivia, in depts. of Cochabamba (Todos Santos) and Santa Cruz (Guarayos; Curiche de San Ramon; San José, Chiquitos).

**Family TURDIDAE**

**Thrushes, Bluebirds, Stonechats, and Solitaires**

**Genus TURDUS Linnaeus<sup>2</sup>**

*Turdus* Linnaeus, Syst. Nat., 10th ed., 1, p. 168, 1758—type, by subs. design. (Gray, List Gen. Bds., p. 27, 1840), *Turdus viscivorus* Linnaeus.<sup>3</sup>

<sup>1</sup> *Donacobius atricapillus albo-vittatus* Lafresnaye and d'Orbigny: Very similar to *D. a. atricapillus*, but slightly larger and with the white superciliaries persisting in the adult plumage.

With only immature birds from Bolivia before us we concluded that *D. albo-vittatus* was inseparable from the typical form. Since that time we have examined three adults (and have seen others in the Carnegie Museum), which clearly show that the Bolivian birds constitute a well-marked race.

*Material examined*.—Bolivia: Todos Santos, Dept. Cochabamba, 2; Guarayos, 1; San José, Chiquitos, 1 (the type); Curiche de San Ramon, Santa Cruz, 1.

<sup>2</sup> After carefully comparing the structural characters of all the American and a good many Old World species, I fail to see how *Planesticus* and *Semimerula* can be properly separated from *Turdus*, unless the distinctions be based on color pattern and certain unstable morphological features.

<sup>3</sup> It has been claimed by Oberholser (Proc. Biol. Soc. Wash., 34, p. 105, 1921) that Selby (Illust. Brit. Orn., 1, p. XXIX, 1825) selected the (English) Blackbird [= *Turdus merula* Linnaeus] as type of the genus *Turdus*. To this contention I

*Merula* (not of Koch, before July, 1816) Leach, Syst. Cat. Spec. Mamm. Bds., p. 20, after August, 1816—type, by monotypy, *Merula nigra* Leach = *Turdus merula* Linnaeus.

*Arceuthornis* Kaup, Skizz. Entw. Europ. Thierw., p. 93, 1829—type, by subs. desig. (Gray, App. List Gen. Bds., p. 8, 1842), *Turdus pilaris* Linnaeus.

*Ixocossyphus* Kaup, Skizz. Entw. Europ. Thierw., p. 145, 1829—type, by orig. desig. (l.c., p. 144), *Turdus viscivorus* Linnaeus.

*Planesticus* Bonaparte, Compt. Rend. Acad. Sci., Paris, 38, p. 3, 1854—type, by subs. desig. (Baird, Rev. Amer. Bds., 1, p. 12, 1864), *Turdus lereboulleti* Bonaparte = *Turdus jamaicensis* Gmelin.

*Semimerula* Selater, Proc. Zool. Soc. Lond., 27, p. 332, 1859—type, by subs. desig. (Ridgway, Bull. U. S. Nat. Mus., 50, Part 4, p. 90, 1907), *Turdus gigas* Fraser.

*Cossyphopsis* Stejneger, Proc. U. S. Nat. Mus., 5, p. 478, Feb., 1883—type, by orig. desig., *Turdus reevei* Lawrence.

### ***Turdus merula merula* Linnaeus. EUROPEAN BLACKBIRD.**

*Turdus merula* Linnaeus, Syst. Nat., 10th ed., 1, p. 170, 1758—"Europe," restr. type locality Sweden; Schiøler, Dansk. Orn. Foren. Tidsskr., 11, p. 175, 1917—Sydprøven, Greenland.

**Range.**—The British Isles, Scandinavia, and the greater part of western and central Europe. Accidental in Greenland (Sydprøven).

### ***Turdus musicus coburni* Sharpe.<sup>1</sup> ICELANDIC REDWING.**

*Turdus coburni* Sharpe, Bull. Brit. Orn. Cl., 12, p. 28, 1901—northern Iceland (type in the British Museum); idem, in Seebohm, Monog. Turd., 2, p. 232, 1902—Iceland; Ticehurst, Bull. Brit. Orn. Cl., 45, p. 90, 1925—Iceland (crit.).

*Turdus iliacus* (not of Linnaeus) Paulsen, in Holbøll, Orn. Beitr. Faun. Grönl., p. 6, 1846—Greenland; Reinhardt, Journ. Orn., 2, p. 439, 1854—Frederikshaab, Greenland; idem, Ibis, 1861, p. 6—Frederikshaab; Winge, Consp. Faun. Groenl., Aves, in Medd. om Grønland, 21, p. 283, 1898—Frederikshaab; Ridgway, Bull. U. S. Nat. Mus., 50, Part 4, p. 127, 1907—part, Greenland; Schiøler, Dansk. Orn. Foren. Tidsskr., 11, p. 175, 1917—Julianeabaab, Greenland.

cannot possibly agree. The chapter with the heading "types of the genera" (p. XXVII) is merely an explanation of the plates, upon which characteristic parts (bills, skulls, feet) of the various British birds are figured. In some cases (e.g., *Falco*, *Fringilla*) the illustrations refer to several species, and it is quite clear that the author did not use the term "type" in a taxonomic sense.

<sup>1</sup> *Turdus musicus coburni* Sharpe: Similar to *T. m. musicus* Linnaeus, of Scandinavia, but decidedly larger (wing, 120–130, against 113–123); upper parts slightly darker; breast and flanks more strongly washed with olive.

Although we have not seen any material from Greenland, there can be scarcely any doubt that the redwings recorded from that island are of the Icelandic race. There seem to be only a few instances of its occurrence in Greenland, one mentioned by Paulsen, another from Frederikshaab, October 28, 1845 (date corrected by Winge), and two from Julianeabaab (January 9 and February 29, 1916).

*Turdus iliacus coburni* Hantzsch, Beitr. Vogelw. Islands, p. 322, 1905—Iceland, Faroe Islands, and Greenland (crit., habits).

*Turdus musicus coburni* Meinertzhagen, Bull. B. O. C., 45, p. 98, 1925—eastern Ross-shire, Scotland (crit.); Hachisuka, Handb. Bds. Iceland, p. 28, 1927—Iceland (crit.); Salomonsen, Dansk. Orn. Foren. Tidsskr., 25, p. 33, 1931—Faroe Islands.

**Range.**—Breeding in Iceland and occasionally on the Faroe Islands; migrating through Great Britain (Ross-shire, Oct. 25, 1924) and France (Riviera); winter quarters unknown. Accidental in Greenland (Frederikshaab, Oct. 28, 1845; Julianehaab, Jan. 9 and Feb. 29, 1916).

**\**Turdus migratorius migratorius* Linnaeus. ROBIN.**

*Turdus migratorius* Linnaeus, Syst. Nat., 12th ed., 1, p. 292, 1766—based on "*Turdus pilaris migratorius*" Catesby, Nat. Hist. Carolina, 1, p. 29, pl. 29, Carolina to Canada; Audubon, Orn. Biog., 2, p. 190, 1834; Seebohm, Cat. Bds. Brit. Mus., 5, p. 220, 1881; Sharpe, in Seebohm, Monog. Turd., 1, p. 269, pls. 62, 63, 1899 (monog.).

(?) *Turdus canadensis* P. L. S. Müller, Natursyst., Suppl., p. 140, 1776—based on ["*Le Merle de Canada*" of Buffon, ex] Brisson, Orn., 2, p. 245, 1760—Canada.<sup>1</sup>

*Planesticus migratorius migratorius* Ridgway, Bull. U. S. Nat. Mus., 50, Part 4, p. 97, 1907 (monog., full bibliog.).

**Range.**—Breeds in Boreal, Transition and Upper Austral zones from limit of trees in northwestern Alaska, northern Mackenzie, northern Manitoba, northern Quebec, and Newfoundland south to Cook Inlet, Alaska, central Alberta, Kansas, Illinois, Indiana, Ohio, Pennsylvania, and New Jersey; winters from central Kansas, Ohio Valley, and New Jersey (irregular farther north) to the Gulf coast and Florida, and to Nuevo Leon, Mexico; accidental in Bermuda and Cuba.

41: Alaska (Nome, 1); Alberta (Edmonton, 1); Labrador (Anatalok Bay, 2); Maine (Lincoln, 1); Massachusetts (Cambridge, 1; Taunton, 1; Dedham, 1; Brookline, 1); New York (Shelter Island, 7; Rochester, 1); Ohio (Columbus, 1); Illinois (Chicago, 1; Highland Park, 1; Joliet, 2; Glen Ellyn, 1; Brainard, 1; Olive Branch, 1; Fort Sheridan, 1; Grand Chain, 2); Wisconsin (Beaver Dam, 10; Woodruff, 1); Tennessee (Pomona Road, 1); Texas (Ingram, Kerr County, 1).

**\**Turdus migratorius achrusterus* (Batchelder). SOUTHERN ROBIN.**

*Merula migratoria achrustera* Batchelder, Proc. N. Engl. Zool. Cl., 1, p. 104, 1900—Raleigh, North Carolina (type in coll. of C. F. Batchelder).

<sup>1</sup> It seems hardly possible to recognize the Robin in Brisson's description.

*Planesticus migratorius achrusterus* Ridgway, Bull. U. S. Nat. Mus., 50, Part 4, p. 100, 1907 (monog., full bibliog.).

*Range*.—Breeds in southern portion of Upper Austral zone from southern Illinois and Maryland to northern Mississippi, central Alabama, northern Georgia, and South Carolina.

7: Georgia (Montezuma, 1); Florida (Nassau County, 2; Santa Rosa Island, 2; Wilson, 2).

**\**Turdus migratorius caurinus* (Grinnell).<sup>1</sup> NORTHWESTERN ROBIN.**

*Planesticus migratorius caurinus* Grinnell, Univ. Calif. Pub. Zool., 5, No. 2, p. 241, 1909—Windfall Harbor, Admiralty Island, Alaska (type in Museum of Vertebrate Zoology, Berkeley); Swarth, l.c., 10, p. 81, 1912—Vancouver Island; Oberholser, Auk, 34, p. 195, 1917 (crit.); Swarth, Univ. Calif. Pub. Zool., 24, p. 306, 1922—Stikine Valley; Brooks and Swarth, Pac. Coast Avifauna, 17, p. 123, 1925—British Columbia.

*Planesticus migratorius propinquus* Ridgway, Bull. U. S. Nat. Mus., 50, Part 4, p. 101, 1907 (part).

*Range*.—Breeds from Glacier Bay, Alaska, south through the Pacific coast region of British Columbia and Washington.

4: Washington (Clallam Bay, 1); California (Nicasio, 1; Sevaine Flats, 2).

**\**Turdus migratorius propinquus* Ridgway. WESTERN ROBIN.**

*Turdus propinquus* Ridgway, Bull. Nutt. Orn. Cl., 2, p. 9, 1877—"western region, including eastern base of Rocky Mountains"; the type in the U. S. National Museum is from Laramie Peak, Wyoming; Sharpe, in Seebohm, Monog. Turd., 1, p. 285, 1899.

*Planesticus migratorius propinquus* Ridgway, Bull. U. S. Nat. Mus., 50, Part 4, p. 101, 1907 (part).

*Range*.—Breeds mainly in Canadian and Transition zones from southeastern British Columbia and Montana south to southern California, Jalisco, Oaxaca, and Vera Cruz, and from the Pacific coast east to the border of the Great Plains; winters from southern British Columbia and Wyoming south to middle Lower California and to the highlands of Guatemala.

38: British Columbia (Okanagan, 2); Saskatchewan (Prince Albert, 1); Montana (Columbia Falls, 1); Oregon (Logan, 2); California (Big Bear Valley, 3; Sevaine Flats, 1; Lassen County, 1;

<sup>1</sup>*Turdus migratorius caurinus* (Grinnell): Similar in color and markings to *T. m. migratorius* Linnaeus, but lacks the extended white patch on inner web of outer tail feathers; resembles *T. m. propinquus* Ridgway in extremely narrow white patch of outer tail feathers, but coloration darker, and of smaller size; coloration much deeper than in either race.

San Geronimo, 1; Placer County, 2; Nicasio, 1; Los Angeles County, 1; St. Helena, 2; Haywards, 1; Monterey, 3); Colorado (Fort Lyon, 4); New Mexico (Rincon, 2; Deming, 1; Fort Union, 2; Members, 3); Arizona (Huachuca Mountains, 3); Mexico (Chihuahua, 5; Jalisco, 1).

***Turdus migratorius phillipsi* Bangs.<sup>1</sup> VERA CRUZ ROBIN.**

*Turdus migratorius phillipsi* Bangs, Proc. Biol. Soc. Wash., **37**, p. 125, 1915—Las Vegas, Vera Cruz (type in Museum of Comparative Zoology, Cambridge, Mass.).

*Planesticus migratorius propinquus* (not *Turdus propinquus* Ridgway) Ridgway, Bull. U. S. Nat. Mus., **50**, Part 4, p. 101, 1907 (part); Phillips, Auk, **28**, p. 80, 1911—Tamaulipas (crit.).

**Range.**—Southern Tamaulipas and mountains of Vera Cruz, Mexico.<sup>2</sup>

**\**Turdus migratorius confinis* Baird.<sup>3</sup> SAN LUCAS ROBIN.**

*Turdus confinis* Baird, Rev. Amer. Bds., **1**, p. 29, 1864—Todos Santos, Cape San Lucas, Lower California (type in U. S. National Museum); Seebohm, Cat. Bds. Brit. Mus., **5**, p. 222, 1881; Sharpe, in Seebohm, Monog. Turd., **1**, p. 267, 1899—Lower California.

*Planesticus confinis* Ridgway, Bull. U. S. Nat. Mus., **50**, Part 4, p. 103, 1907 (monog., full bibliog.); Townsend, Bull. Amer. Mus. N. H., **48**, p. 52, 1923—San Bernardo Mountain, Lower California; Grinnell, Univ. Calif. Pub. Zool., **32**, p. 233, 1928—Lower California (monog.).

**Range.**—Breeds in Upper Austral zone of mountains in the Cape district of Lower California.

**8:** Lower California ("mountains of Lower California," 3; El Sauz, 4; Sierra de la Laguna, 1).

**\**Turdus rufitorques* Hartlaub.<sup>4</sup> RUFOUS-COLLARED THRUSH.**

*Turdus (Merula) rufitorques* Hartlaub, Rev. Zool., **7**, p. 214, 1844—Guatemala (type in Bremen Museum).

*Turdus rufitorques* Dubus, Esq. Orn., livr. 4, pls. 19, 20, 1848—"Tabasco," Mexico; Sclater, Proc. Zool. Soc. Lond., **27**, p. 334, 1859—Guatemala (monog.); Sclater and Salvin, Ibis, 1859, p. 6—Calderas, Volcan de Fuego (7,000 ft.), Las Gordinas and near Lake Atitlan, Guatemala;

<sup>1</sup> *Turdus migratorius phillipsi* Bangs: "Similar in color and markings to *T. m. propinquus* Ridgway, but decidedly smaller, with relatively larger bill. Type, adult female: wing, 126; tail, 86; tars., 33; exposed culmen, 19." (Bangs, l.c.).

<sup>2</sup> Another race, resembling *T. m. phillipsi* in size, but characterized by very dark coloration, has recently been described from Chilpancingo, Guerrero, in Mexico, as *T. m. permixtus* Griscom (Bull. Mus. Comp. Zool., **75**, p. 396, 1934).

<sup>3</sup> *Turdus migratorius confinis* Baird obviously is merely an excessively pale race of the Robin.

<sup>4</sup> This is a near relative and possibly merely a strongly marked race of the American Robin (*T. migratorius*), which it is said to resemble in manners and song.



Salvin, Ibis, 1860, p. 29—Dueñas, Guatemala; Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 22, 1879—Dueñas, Calderas, Volcan de Fuego, Godines, Quezaltenango, Cordillera of Totonicapam, Chilasco, and Tactic, Guatemala.

*Merula rufitorques* Seebohm, Cat. Bds. Brit. Mus., 5, p. 255, 1881—Guatemala (monog.); Sharpe, in Seebohm, Monog. Turd., 2, p. 39, pl. 86, 1900—Guatemala and Chiapas (Volcan de Tacana, Niquiril, and San Cristobal).

*Planesticus rufitorques* Ridgway, Bull. U. S. Nat. Mus., 50, Part 4, p. 96, 1907—highlands of Guatemala and Chiapas (monog.); Dearborn, Field Mus. Nat. Hist., Orn. Ser., 1, p. 138, 1907—near Tecpam, Guatemala (habits).

**Range.**—Highlands of southeastern Mexico, in State of Chiapas (Volcan de Tacana; Niquiril; San Cristobal; Comitán; Pinabete), Guatemala, and El Salvador.<sup>1</sup>

17: Guatemala (near Tecpam, 9; Volcan de Fuego, 2; Sierra Santa Elena, 6).

**\**Turdus rufo-palliatus rufo-palliatus* Lafresnaye. MAZATLAN ROBIN.**

*Merula flavirostris* (not *Turdus flavirostris* Horsfield, 1821) Swainson, Philos. Mag., (n.s.), 1, p. 369, May, 1827—Temascaltepec, Mexico (type in coll. Bullock); Ferrari-Perez, Proc. U. S. Nat. Mus., 9, p. 132, 1886—Chietla and Chiantla, Puebla, Mexico; Miller, Bull. Amer. Mus. N. H., 21, p. 369, 1905—Escuinapa, Arroyo de Limones, Los Pielos, and Juanna Gomez River, Sinaloa (habits).

*Turdus rufo-palliatus* Lafresnaye, Rev. Zool., 3, p. 259, 1840—"Monterey, en Californie," errore (type now in Museum of Comparative Zoology, Cambridge, Mass.); Bangs and Penard, Bull. Mus. Comp. Zool., 63, p. 37, 1919—Acapulco, southwestern Mexico, suggested as type locality; Bangs, l.c., 70, p. 328, 1930 (note on type); McLellan, Proc. Calif. Acad. Sci., (4), 16, p. 40, 1927—Labrados, Sinaloa, and San Blas, Nayarit; van Rossem, Trans. San Diego Soc. N. H., 6, p. 277, 1931—Chinobampo and Guiracaba, Sonora.

*Turdus palliatus* Bonaparte, Consp. Gen. Av., 1, p. 272, 1850—Mexico (type in Leiden Museum).

*Turdus flavirostris* Selater, Proc. Zool. Soc. Lond., 27, p. 332, 1859—western Mexico and "Lower California" (monog.); Baird, Rev. Amer. Bds., 1, p. 31, 1864—Tehuantepec and Colima, Mexico; Selater, Proc. Zool. Soc. Lond., 1870, p. 550—San Juan del Rio, Oaxaca; Grayson, Proc. Bost. Soc. N. H., 14, p. 276, 1872—part, Mazatlan, Tepic, Banderas Bay, Colima, and Tehuantepec; Lawrence, Mem. Bost. Soc. N. H., 2, p. 266, 1874—part, Mazatlan and plains of Colima; idem, Bull. U. S. Nat. Mus., 4, p. 11, 1875—Tehuantepec City; Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 21, pl. 3, fig. 1, 1879—part, Mexico (excl. Tres Marias Islands); Seebohm, Cat. Bds. Brit. Mus., 5, p. 225, 1881—part, Mexico

<sup>1</sup> Fide A. van Rossem (in litt.).

(excl. Tres Marias Islands); Salvin, Proc. Zool. Soc. Lond., 1883, p. 419—Acapulco, Guerrero; Sharpe, in Seebohm, Monog. Turd., 1, p. 299, pl. 67, 1899—Sierra de Alamos (Sonora), Mazatlan and Presidio (Sinaloa), Zapotlan (Jalisco), San Blas and Sierra de Nayarit (Nayarit), Colima, Acapulco and Dos Arroyos (Guerrero), Tehuantepec (Oaxaca), and Chietla, (Puebla).

*Planesticus flavirostris* Ridgway, Bull. U. S. Nat. Mus., 50, Part 4, p. 105, 1907—western and southwestern Mexico (monog.).

*Merula graysoni* (not of Ridgway) Nelson, N. Amer. Fauna, 14, p. 60, 1899—part, Santiago, Tepic.

*Range*.—Western and southwestern Mexico, in states of Sonora (Sierra de Alamos, Chinobampo, Guirocaba), Sinaloa (Mazatlan, Presidio, Labrados, Escuinapa, etc.), Durango (Chacala), Nayarit (San Blas, Sierra de Nayarit), Jalisco (Zapatlan, Tuxpan), Colima (Manzanillo, Colima), Michoacan (Ahuacana), Mexico (Temascaltepec), Guerrero (Acapulco, Ejido Nuevo, Iguala), Puebla (Chietla, Chiantla, Piaxtla), and Oaxaca (Tehuantepec, San Juan del Rio).

10: Mexico, Sinaloa (Escuinapa, 2); Colima (Colima, 1); Jalisco (Tuxpan, 3); Guerrero (Iguala, 4).

### ***Turdus rufo-palliatus graysoni* (Ridgway).<sup>1</sup> TRES MARIAS ROBIN.**

*Merula flavirostris graysoni* Ridgway, Proc. U. S. Nat. Mus., 5, p. 12, June, 1882—Tres Marias Islands (type in U. S. National Museum).

*Turdus flavirostris* (not of Swainson) Grayson, Proc. Bost. Soc. N. H., 14, p. 276, 1872—part, Tres Marias; Lawrence, Mem. Bost. Soc. N. H., 2, p. 266, 1874—part, Tres Marias; Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 21, 1879—part, Tres Marias; Seebohm, Cat. Bds. Brit. Mus., 5, p. 225, 1881—part, Tres Marias.

*Merula graysoni* Nelson, N. Amer. Fauna, 14, p. 60, 1899—part, Tres Marias Islands (crit).

*Turdus graysoni* Sharpe, in Seebohm, Monog. Turd., 1, p. 301, pl. 68, 1899—Tres Marias Islands; McLellan, Proc. Calif. Acad. Sci., (4), 16, p. 41, 1927—Maria Madre, Tres Marias Islands.

*Planesticus graysoni* Ridgway, Bull. U. S. Nat. Mus., 50, Part 4, p. 106, 1907—Tres Marias Islands (monog.); McLellan, Proc. Calif. Acad. Sci., (4), 15, p. 318, 1926—Arroyo Hondo, Maria Madre, and Maria Magdalena, Tres Marias Islands.

*Range*.—Tres Marias Islands, western Mexico.

<sup>1</sup> This is merely a pale, large-billed race of the mainland bird. Certain individuals of the latter in worn breeding plumage closely approach it in coloration, and it is no doubt on such a specimen that Nelson's record of *T. r. graysoni* from Santiago, Nayarit, was based.

Five specimens examined.

**\**Turdus falcklandii falcklandii* Quoy and Gaimard.<sup>1</sup> FALKLAND ISLAND ROBIN.**

*Turdus falcklandii* Quoy and Gaimard, in Freycinet, Voy. Uranie et Physicienne, Zool., livr. 3, p. 104, Aug., 1824—"aux îles Malouines" (type in Paris Museum examined); Stone, Rep. Princet. Univ. Exp., 2, (2), p. 826, 1928—Falkland Islands.

*Turdus falcklandiae* Garnot, Ann. Sci. Nat., 7, p. 44, 1826—Iles Malouines; idem, in Duperrey, Voy. Coquille, Zool., 1, (2), p. 540, 1829—Malouines; d'Orbigny, Voy. Amér. Mérid., Ois., p. 202, 1836—part, Malouines.

*Turdus falcklandicus* Darwin, Zool. Beagle, 3, p. 59, 1839—part, Falkland Islands; Gould, Proc. Zool. Soc. Lond., 27, p. 94, 1859—Falkland Islands (eggs descr.); Sclater, l.c., p. 330, 1859—part, Falkland Islands; idem, l.c., 28, p. 384, 1860—Falkland Islands; Abbott, Ibis, 1861, p. 152—Falkland Islands (habits); Seebohm, Cat. Bds. Brit. Mus., 5, p. 224, pl. 13, 1881—Falkland Islands; Sharpe, in Seebohm, Monog. Turd., 1, p. 297, pl. 66, 1899—Falkland Islands; Vallentin, Mem. Proc. Manchester Lit. Phil. Soc., 48, No. 23, p. 43, 1904—Falkland Islands (nest descr.); Brooks, Bull. Mus. Comp. Zool., 61, p. 159, 1917—Falkland Islands.

*Planesticus magellanicus falcklandicus* Wace, El Hornero, 2, p. 204, 1921—Falkland Islands.

*Planesticus falcklandicus* Dabbene, Anal. Mus. Nac. Hist. Nat. Buenos Aires, 18, p. 359, 1910—Falkland Islands; Bennett, Ibis, 1926, p. 331—Falkland Islands.

**Range.**—Falkland Islands.

**2:** Falkland Islands (Port Stephens, 2).

**\**Turdus falcklandii magellanicus* King. CHILEAN ROBIN.**

*Turdus magellanicus* King, Proc. Comm. Sci. Corresp. Zool. Soc. Lond., 1, p. 14, Jan. 1831—"in fretu Magellanico" (type apparently lost); Lafresnaye and d'Orbigny, Syn. Av., 1, in Mag. Zool., 7, cl. 2, p. 16, 1837—Patagonia; Hartlaub, Naumannia, 1853, p. 212—Valdivia, Chile; Bibra, Denks. Math.-Naturwiss. Cl. Akad. Wiss. Wien, 5, p. 129, 1853—Valparaiso; Kittlitz, Denkw. Reise, 1, pp. 149, 164, 1858—near Valparaiso; Pelzeln, Reise Novara, Zool., 1, p. 71, 1865—Chile; Durnford, Ibis, 1878, p. 392—valley of the Rio Sengel, Patagonia; Seebohm, Cat. Bds. Brit. Mus., 5, p. 223, pl. 14, 1881—Juan Fernandez, Chile, and Patagonia; Sharpe, Proc. Zool. Soc. Lond., 1881, p. 7—Tom Bay and Cockle Cove, Straits of Magellan; Salvin, l.c., 1883, p. 419—Juan Fernandez; Sclater and Hudson, Arg. Orn., 1, p. 3, 1888—Rio Negro (habits); Oustalet, Miss. Sci. Cap Horn, 6, Ois., p. B 80, 1891—Punta Arenas, Good Success Bay, and Orange Bay; Johow, Est. Flora Island Juan Fernandez, p. 237, 1896—Mas A Tierra; E. Reed, Anal. Univ. Chile, 93, p. 198, 1896—Chile north

<sup>1</sup>*Turdus f. falcklandii* differs from the continental form (*magellanicus*) by much larger bill and much more rufescent coloration, the back, wing coverts, etc., being between raw umber and Prout's brown (instead of grayish olive brown) and the abdomen ochraceous tawny (instead of ochraceous buff) with the chest of a deeper brownish tone.

Seven specimens examined.

- to Atacama; Albert, l.c., **100**, p. 883, 1898—Chile (monog.); Schalow, Zool. Jahrb., Suppl., **4**, pp. 731, 747, 1898—Ovalle (Coquimbo), Santiago, and Mas A Tierra (crit.; eggs descr.); Sharpe, in Seebohm, Monog. Turd., **1**, p. 295, pl. 65, 1899—Chile, Juan Fernandez, and Patagonia (monog.); Salvadori, Ann. Mus. Civ. Gen., (2), **20**, p. 618, 1900—Punta Arenas and Penguin Rookery (Staten Island); Dabbene, Anal. Mus. Nac. Hist. Nat. Buenos Aires, **8**, p. 358, 1902—Lapataja (Beagle Channel) and Ushuaia, Tierra del Fuego; Nicoll, Ibis, 1904, p. 45—extreme west of the Straits of Magellan; Paessler, Zeits. Ool. Orn., **16**, p. 28, 1906—Coronel, Chile (nest and eggs descr.); Crawshaw, Bds. Tierra del Fuego, p. 39, 1907—Useless Bay; Lönnberg, in Skottsberg, Nat. Hist. Juan Fernandez, **3**, Part 1, p. 3, 1921—Mas A Tierra and Mas Afuera; Peters, Bull. Mus. Comp. Zool., **65**, p. 328, 1923—Bariloche, Nahuel Huapi, and Huanuluan, Rio Negro; Bullock, Rev. Chil. Hist. Nat., **33**, p. 125, 1929—Cerro de Nahuelbuta, Malleco; idem, l.c., p. 184, 1929—Angol, Malleco.
- Turdus magellanicus pambertoni* Wetmore, Univ. Calif. Pub. Zool., **21**, p. 335, June, 1923—Cerro Anecon Grande, Rio Negro (type in University of California Museum of Vertebrate Zoology, Berkeley, examined); idem, l.c., **24**, p. 455, 1926—Cerro Anecon Grande; idem, Bull. U. S. Nat. Mus., **133**, p. 356, 1926—below General Roca, Rio Negro; Stone, Rep. Princet. Univ. Exp. Patag., **2**, (2), p. 826, 1928—General Roca, Rio Negro (crit.).
- Turdus rufiventris* (not of Vieillot) Meyen, Nov. Act. Acad. Leop.-Carol., **16**, Suppl., p. 74, 1834—Copiapó, Chile (spec. in Berlin Museum examined; =juv.).
- Turdus falcklandiae* (not of Quoy and Gaimard) d'Orbigny, Voy. Amér. Mérid., Ois., p. 202, 1838—Valparaiso, Chile.
- Turdus falcklandicus* Darwin, Zool. Beagle, **3**, p. 59, 1839—part, Tierra del Fuego, Rio Negro, and Chiloé Island; Fraser, Proc. Zool. Soc. Lond., **13**, p. 111, 1843—Chile; Yarrell, l.c., **15**, p. 53, 1847—Chile (eggs descr.); Peale, U. S. Expl. Exp., **8**, p. 85, 1848—Chile; Selater, Proc. Zool. Soc. Lond., **27**, p. 330, 1859—part, Chile (Valdivia) and southern Patagonia; Philippi and Landbeck, Arch. Nat., **26**, (1), p. 284, 1860—Chile (crit.); idem, Anal. Univ. Chile, **18**, p. 33, 1861—Chile (crit.); Selater, Proc. Zool. Soc. Lond., 1867, pp. 320, 337—Chiloé and Valdivia; Selater and Salvin, Ibis, 1868, p. 186—Sandy Point; Philippi, Anal. Univ. Chile, **31**, p. 259, 1868—Chile; Selater, Proc. Zool. Soc. Lond., 1872, p. 548—Rio Negro, Patagonia; Reed, Ibis, 1874, pp. 82, 83—Mas A Tierra and Mas Afuera; Salvin, Ibis, 1875, p. 376—same localities; Reed, Anal. Univ. Chile, **49**, p. 541, 1877—Cauquenes, Colchagua; Landbeck, Zool. Garten, **18**, p. 245, 1877—Chile; Selater and Salvin, Proc. Zool. Soc. Lond., 1878, p. 431—Juan Fernandez, Gray Harbour (Messier Channel) and Port Churrucha, Magellan Strait; Doering, in Roca, Inf. Exp. Rio Negro, Zool., p. 36, 1881—Rio Negro and Rio Colorado, Patagonia; Housse, Rev. Chil. Hist. Nat., **28**, p. 48, 1924—Isla La Mocha, Arauco, Chile; Gigoux, l.c., **28**, p. 84, 1924—Caldera, Atacama; Jaffuel and Pirion, l.c., **31**, p. 108, 1927—Marga-Marga, Valparaiso.
- Turdus fuscater* (not of Lafresnaye and d'Orbigny) Des Murs, in Gay, Hist. fís. pol. Chile, Zool., **1**, p. 331, 1847—Coquimbo to Chiloé, Chile; Germain, Proc. Bost. Soc. N. H., **7**, p. 311, 1860—Santiago, Chile; Lataste, Act.

Soc. Scient. Chili, 3, p. CXIV, 1893—Bureo, Nuble, Chile; idem, l.c., p. CXV, 1893—Caillihue, Curicó; Waugh and Lataste, l.c., 4, p. LXXXV, 1894—Peñaflor, Santiago; Lataste, Proc.-Verb. Sé. Soc. Linn. Bordeaux, 1923, p. 169—Santa Teresa (Requinoa), Chile.

*Merula fusca* Cassin, in Gilliss, U. S. Astron. Exp., 2, p. 184, 1855—Chile.

*Turdus fuscoater* Frauenfeld, Verh. Zool. Bot. Ges. Wien, 10, Abh., p. 637, 1860—near Santiago, Chile.

*Merula magellanica* Ridgway, Proc. U. S. Nat. Mus., 12, p. 131, 1889—Port Otway, Laredo, and Port Churruca, Straits of Magellan; Arribáizaga, Anal. Mus. Nac. Hist. Nat. Buenos Aires, 8, p. 165, 1902—Lago General Paz, Chubut.

*Turdus magellanicus magellanicus* Hartert and Venturi, Nov. Zool., 16, p. 162, 1909—Roca and Frutillar, Rio Negro; Stone, Rep. Princet. Univ. Exp. Patag., 2, (2), p. 823, 1928—Punta Arenas, Patagonia (crit.).

*Planesticus magellanicus* Dabbene, Anal. Mus. Nac. Hist. Nat. Buenos Aires, 18, p. 359, 1910—Patagonia, Tierra del Fuego, and Chubut; Barros, Rev. Chil. Hist. Nat., 24, p. 148, 1920—Nilahué, Curicó; idem, l.c., 25, p. 187, 1921—Cordillera of Aconcagua, Chile; Housse, l.c., 29, p. 146, 1929—San Bernardo, Santiago.

*Planesticus falcklandii magellanicus* Hellmayr, Nov. Zool., 28, p. 238, 1921—Rio Negro, Neuquen, and Valdivia, Chile (crit.).

*Turdus falcklandii magellanicus* Paessler, Journ. Orn., 70, p. 474, 1922—Coronel, Chile (habits); Hellmayr, Field Mus. Nat. Hist., Zool. Ser., 19, p. 27, 1932—Chile (crit., range).

*Range.*—Chile, from Atacama to the Straits of Magellan and Tierra del Fuego, including Mas A Tierra and Mas Afuera, and southern Patagonia, north to the Rio Colorado.<sup>1</sup>

24: Chile (Tambillos, Coquimbo, 1; Los Maitenes, Limache, Valparaiso, 1; Pilen Alto, Maule, 1; Rio Colorado, Malleco, 1;

<sup>1</sup> The extensive series examined in the present connection clearly shows birds from Argentina (*pembertonii*) to be inseparable. The adults, including the type, from Cerro Anecon Grande, western Rio Negro, are in exceedingly worn breeding condition, which accounts for their pallid coloration. Specimens in corresponding plumage from Punta Arenas (January), Valparaiso (October), Malleco (February), Chiloé (January), and Ascension Island (February) are precisely similar, having the chest, sides, and flanks pale grayish drab and the middle of the lower parts pinkish buff, while, on the upper parts, the brownish or olivaceous color has given way to a dull grayish brown tone. On the other hand, three females, in exceedingly fresh dress, from Puesto Burro, western Chubut (April), which doubtless should belong to the pale Argentine race, are just as deeply colored as birds in comparable plumage from Pilen Alto, Maule (May), and Tambillos, Coquimbo (July), and a series of breeding birds from Neuquen is not distinguishable from Magellanic examples either.

The juvenile plumage is also extremely variable, specimens with grayish upper parts and nearly whitish markings and ventral surface as well as others with brownish back, buffy spots, and deep ochraceous under side being found alike in Chile and Argentina.

*Material examined* (other than listed above).—Chile: Copiapó, Atacama, 1; Valdivia, 6; Fundo Esmeralda, Osorno, Llanquihue, 1; Punta Arenas, 5.—Argentina: Cerro Anecon Grande, Rio Negro, 5; Lake Nahuel Huapi, Neuquen, 7; Rio Trafal, Neuquen, 2; Casa Lata, Neuquen, 1.

Curacautin, Malleco, 1; Lake Gualletué, Cautín, 1; Mafil, Valdivia, 3; Ríñihue, Valdivia, 2; Quellon, Chiloé Island, 7; Melinka, Ascension Island, Guaitecas Islands, 2; Rio Nirehuau, Llanquihue, 1; Argentina (Puesto Burro, Chubut, 3).

**\**Turdus assimilis assimilis* Cabanis.<sup>1</sup> JALAPA THRUSH.**

*Merula tristis* Swainson,<sup>2</sup> *Philos. Mag.*, (n.s.), 1, p. 369, May, 1827—Temascaltepec, Mexico (type now in Cambridge (Engl.) Museum);<sup>3</sup> Ferrari-Perez, *Proc. U. S. Nat. Mus.*, 9, p. 131, 1886—Jalapa.

*Turdus assimilis* Cabanis, *Mus. Hein.*, 1, p. 4, "1850"—Oct., 1851—Jalapa, Mexico (type in Heine Collection, Halberstadt); Selater, *Proc. Zool. Soc. Lond.*, 25, p. 202, 1857—Jalapa, Vigia, and Orizaba, Vera Cruz (crit.); idem, l.c., 27, p. 327, 1859—southern Mexico (monog.); idem, l.c., 1864, p. 172—city of Mexico; Sumichrast, *Mem. Bost. Soc. N. H.*, 1, p. 543, 1869—Muero, Potrero, near Cordoba, and Orizaba, Vera Cruz, Mexico; Lantz, *Trans. Kansas Acad. Sci.*, 16, p. 224, 1899—Coatepec, Vera Cruz.

*Turdus assimilis lygus* Oberholser, *Proc. Biol. Soc. Wash.*, 34, p. 106, 1921—new name for *Merula tristis* Swainson.

*Turdus tristis* Salvin and Godman, *Biol. Centr.-Amer., Aves*, 1, p. 15, 1879—part, eastern Mexico, in states of Vera Cruz, Oaxaca, and Mexico; Seebohm, *Cat. Bds. Brit. Mus.*, 5, p. 211, 1881—part, southern Mexico; Sharpe, in Seebohm, *Monog. Turd.*, 1, p. 219, pl. 50, fig. 2, 1898—part, eastern Mexico.

*Merula tristis assimilis* Chapman, *Bull. Amer. Mus. N. H.*, 10, p. 19, 1898—Jalapa, Vera Cruz (crit., song).

*Planesticus tristis tristis* Ridgway, *Bull. U. S. Nat. Mus.*, 50, Part 4, p. 108, 1907—part, Mexico (Temascaltepec, city of Mexico) and Morelos (Huitzilac).

*Planesticus tristis assimilis* Ridgway, *Bull. U. S. Nat. Mus.*, 50, Part 4, p. 109, 1907—eastern Mexico, in states of Vera Cruz, San Luis Potosi, and Oaxaca (monog.).

*Turdus assimilis assimilis* Miller and Griscom, *Amer. Mus. Nov.*, 184, p. 10, 1925—eastern Mexico, in states of Tamaulipas, Vera Cruz, Mexico, and Oaxaca (crit.).

<sup>1</sup> In the absence of adequate material for independent investigation, we are following the arrangement proposed by Miller and Griscom in their review of *T. assimilis* and allies, although we feel that the last word on this subject has not yet been said. We refrain from giving an extensive synonymy as it is practically impossible to properly allocate many of the references without reexamination of the material upon which they are based.

<sup>2</sup> It appears that the combination *Turdus tristis* is preoccupied by an earlier *Turdus tristis* P. L. S. Müller (*Natursyst.*, Suppl., p. 145, 1776). Cf. Oberholser, *Proc. Biol. Soc. Wash.*, 34, p. 106, 1921.

<sup>3</sup> Cf. Salvin, *Proc. Zool. Soc. Lond.*, 1870, p. 180; Salvin and Godman, *Biol. Centr.-Amer., Aves*, 1, p. 16, 1879.

*Range*.—Eastern and southern Mexico, in states of San Luis Potosi, Tamaulipas, Vera Cruz, Mexico, Puebla, Morelos, and Oaxaca.<sup>1</sup>

2: Mexico (Mexico City, 1; Juchatengo, Oaxaca, 1).

**\**Turdus assimilis renominatus* Miller and Griscom.<sup>2</sup> WEST MEXICAN THRUSH.**

*Turdus assimilis renominatus* Miller and Griscom, Amer. Mus. Nov., 184, p. 10, 1925—Juan Lisiarraga Mountains, southern Sinaloa, Mexico (type in the American Museum of Natural History, New York).

*Merula tristis* (not of Swainson) Jouy, Proc. U. S. Nat. Mus., 16, p. 774, 1894—Barranca Ibarra, Jalisco.

*Merula tristis tristis* Miller, Bull. Amer. Mus. N. H., 21, p. 369, 1905—Juan Lisiarraga Mountains, Sinaloa.

*Turdus tristis* Sharpe, in Seebohm, Monog. Turd., 1, p. 219, 1898—part, western Mexico, in states of Sinaloa, Tepic, Jalisco, Colima, Michoacan, and Guerrero.

*Planesticus tristis tristis* Ridgway, Bull. U. S. Nat. Mus., 50, Part 4, p. 108, 1907—part, western Mexico, in states of Sinaloa, Durango, Tepic, Jalisco, Michoacan, Guerrero, and western Oaxaca (monog.).

*Range*.—Western Mexico, in states of Sinaloa, Durango, Nayarit, Jalisco, Colima, Michoacan, Guerrero, and western Oaxaca.

3: Mexico (Tepic, 3).

**\**Turdus assimilis rubicundus* (Dearborn).<sup>3</sup> RUDDY THRUSH.**

*Planesticus tristis rubicundus* Dearborn, Field Mus. Nat. Hist., Orn. Ser., 1, p. 137, 1907—Patulul, Solola, Guatemala (type in Field Museum).

*Turdus assimilis* (not of Cabanis) Salvin, Ibis, 1860, p. 272—Dueñas, Guatemala; Baird, Rev. Amer. Bds., 1, p. 24, 1864—part, Dueñas.

<sup>1</sup> Nelson (Auk, 15, p. 161, 1898) refers specimens from Santo Domingo, in northeastern Oaxaca, to *Merula leucauchen*. The very same individuals—breeding birds—subsequently identified by Ridgway (Bull. U. S. Nat. Mus., 50, Part 4, pp. 110, 111, 1907) as *Planesticus tristis cnephosa*, formed the basis for extending the range of that race all over the Pacific slope of Central America, a conclusion that can hardly be maintained in the light of our actual knowledge. Cf. Miller and Griscom, Amer. Mus. Nov., 184, pp. 14, 15, 1925.

<sup>2</sup> *Turdus assimilis renominatus* Miller and Griscom: Very close to *T. a. assimilis*, but chest, sides, and flanks markedly paler, buffy grayish brown to light isabella rather than buffy broccoli brown to light hair brown; upper parts on average slightly paler.

The characters of this rather poor race are appreciable only in fresh fall plumage and early winter. Birds in worn breeding condition can hardly be told apart.

Nineteen specimens from Sinaloa, Tepic, Jalisco, and Guerrero examined.

<sup>3</sup> *Turdus assimilis rubicundus* (Dearborn): Nearest to *T. a. assimilis*, but much more richly colored throughout. Upper parts decidedly more rufescent than Dresden brown; chest, sides, and flanks bright broccoli brown; wings and tail

*Turdus tristis* (not *Merula tristis* Swainson) Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 15, 1879—part, Dueñas, western Guatemala (crit.).

*Turdus leucauchen* (not of Sclater) Sharpe, in Seebohm, Monog. Turd., 1, p. 223, 1898—part ("ptil. hiem."), Dueñas, Guatemala, and Volcan de San Miguel, Salvador.

*Turdus assimilis rubicundus* Miller and Griscom, Amer. Mus. Nov., 184, p. 11, 1925—western Guatemala (crit.).

**Range.**—Pacific slope of Guatemala (Patulul; Dueñas) and El Salvador (Volcan de San Miguel, Volcan de San Salvador, Volcan Santa Ana).

1: Guatemala (Patulul, Solola, 1).

**\**Turdus assimilis leucauchen* Sclater.<sup>1</sup> SCLATER'S WHITE-NECKED THRUSH.**

*Turdus leucauchen* Sclater, Proc. Zool. Soc. Lond., 26, p. 447, 1858—Guatemala (type now in British Museum); idem, l.c., 27, p. 328, 1859—Guatemala (monog.); Baird, Rev. Amer. Bds., 1, p. 24, 1864—part, Choctum, Vera Paz, Guatemala (crit.); Seebohm, Cat. Bds. Brit. Mus., 5, p. 212, 1881—part, Guatemala; Sharpe, in Seebohm, Monog. Turd., 1, p. 223, pl. 51, 1898—part, eastern Guatemala and Chiapas, southeastern Mexico.

*Planesticus tristis leucauchen* Ridgway, Bull. U. S. Nat. Mus., 50, Part 4, p. 111, 1907—part, northern and central Guatemala (Vera Paz); Dearborn, Field Mus. Nat. Hist., Orn. Ser., 1, p. 137, 1907—Los Amates, Guatemala.

*Turdus assimilis leucauchen* Miller and Griscom, Amer. Mus. Nov., 184, p. 11, 1925—northern, central, and eastern Guatemala (crit.).

*Turdus tristis* (not *Merula tristis* Swainson) Boucard, Ann. Soc. Linn. Lyon, (n.s.), 25, p. 38, 1878—Coban, Guatemala; Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 15, 1879—part, central Guatemala (Coban, Choctum, etc.).

(?) *Merula tristis* Lantz, Trans. Kansas Acad. Sci., 16, p. 224, 1899—Santo Tomas, Guatemala.

**Range.**—Northern, central, and eastern Guatemala, and southeastern Mexico, in State of Chiapas (Union Juarez, Jilotol, and Santa Rita).

3: Guatemala (Los Amates, Izabal, 2; Vera Paz, 1).

much blacker, more like *T. a. leucauchen*, excepting, of course, the wing coverts and outer webs of secondaries, which are rufescent brown like the back instead of slaty olive.

Six specimens from El Salvador (Volcan de San Salvador), while variable inter se, are much closer to this than any other form. One or two are almost duplicates of the type, while the remaining ones are not so extremely dark, one being very nearly as pale as *assimilis*. According to A. van Rossem (in litt.), birds from the Volcan Santa Ana belong likewise to *T. a. rubicundus*, whose range, in El Salvador, is restricted to the volcanic coastal range.

<sup>1</sup> *Turdus assimilis leucauchen* Sclater: Easily distinguished from the preceding forms by dark grayish olive to dark slaty olive upper parts with a hardly perceptible tinge of brownish; deeper blackish streaking of the throat; more strongly contrasted white jugular patch; and much darker, hair brown or olive gray breast, sides, and flanks.



\**Turdus assimilis parcolor* Austin.<sup>1</sup> AUSTIN'S THRUSH.

*Turdus assimilis parcolor* Austin, Bull. Mus. Comp. Zool., 69, p. 386, 1929—Cayo district, British Honduras (type in Museum of Comparative Zoology, Cambridge, Mass.); Bangs, l.c., 70, p. 329, 1930—Cayo district (note on type).

(?) *Turdus tristis* (not *Merula tristis* Swainson) Sclater and Salvin, Proc. Zool. Soc. Lond., 1870, p. 838—San Pedro, Honduras (crit.); Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 15, 1879—part, San Pedro, Honduras.

*Turdus leucauchen* (not of Sclater) Seebohm, Cat. Bds. Brit. Mus., 5, p. 212, 1881—part, Honduras; Sharpe, in Seebohm, Monog. Turd., 1, p. 223, 1898—part, Cayo, British Honduras, and (?) San Pedro, Honduras.

*Range*.—Highlands of British Honduras (Cayo and Toledo districts) and (?) adjoining parts of Honduras (San Pedro).

3: British Honduras (near Cayo, 3).

*Turdus assimilis atrotinctus* Miller and Griscom.<sup>2</sup> NICARAGUAN THRUSH.

*Turdus assimilis atrotinctus* Miller and Griscom, Amer. Mus. Nov., 184, p. 12, 1925—Tuma, Matagalpa, Nicaragua (type in the American Museum of Natural History, New York).

*Turdus tristis* (not *Merula tristis* Swainson) Salvin, Ibis, 1872, p. 314—Chontales (crit.); Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 15, 1879—part, Nicaragua (Chontales).

*Turdus leucauchen* (not of Sclater) Sharpe, in Seebohm, Monog. Turd., 1, p. 223, 1898—part, Nicaragua (Chontales, La Libertad, Matagalpa, Jali, and Santa Cruz, Rio Coco).

*Range*.—Caribbean slope of the highlands of Nicaragua.

<sup>1</sup> *Turdus assimilis parcolor* Austin can hardly be defined with the scanty material at present available. It is described as being similar to *T. a. oblitus*, but slightly smaller and lighter gray above with a trace of olive, while the throat is said to have more black. The three specimens before me are very near to *T. a. leucauchen* in coloration except for their paler chest and sides, but conspicuously smaller (wing, 117–118).

There is not much difference between the sexes, the female being slightly more olivaceous above and less blackish on the head.

A good series of fresh skins from Honduras is required to establish the status of this form.

<sup>2</sup> *Turdus assimilis atrotinctus* Miller and Griscom: Nearest to *T. a. leucauchen*, but upper parts slaty black, somewhat duller on wings, tail, and pileum, without any olive tinge; chest, sides, and flanks deep mouse gray instead of hair brown; females less blackish above, deep slaty olive; the gray of the lower parts also tinged with olive.

This is a well-marked race, differing from the Gray-backed Thrush of eastern Guatemala by much darker coloration.

Eight specimens from various Nicaraguan localities examined.

**\**Turdus assimilis oblitus* Miller and Griscom.<sup>1</sup> COSTA RICAN THRUSH.**

*Turdus assimilis oblitus* Miller and Griscom, Amer. Mus. Nov., 184, p. 12, 1925—Tenorio, Costa Rica (type in Museum of Comparative Zoology, Cambridge, Mass.); Bangs, Bull. Mus. Comp. Zool., 70, p. 328, 1930—Tenorio (note on type).

*Turdus leucauchen* (not of Sclater) Baird, Rev. Amer. Bds., 1, p. 24, 1864—part, Dota Mountains, Costa Rica; Lawrence, Ann. Lyc. Nat. Hist. N. Y., 9, p. 91, 1868—Navarro and Dota, Costa Rica; Frantzius, Journ. Orn., 17, p. 290, 1869—Costa Rica; Boucard, Proc. Zool. Soc. Lond., 1878, p. 50—Orosi, Costa Rica; Seebohm, Cat. Bds. Brit. Mus., 5, p. 212, 1881—part, Costa Rica; Sharpe, in Seebohm, Monog. Turd., 1, p. 223, 1898—part, Costa Rica.

*Turdus tristis* (not *Merula tristis* Swainson) Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 15, 1879—part, Dota Mountains and Navarro, Costa Rica; Seebohm, Cat. Bds. Brit. Mus., 5, p. 211, 1881—part, Costa Rica; Underwood, Ibis, 1896, p. 432—Volcan de Miravalles, Costa Rica.

*Merula tristis* Zeledón, Anal. Mus. Nac. Costa Rica, 1, p. 104, 1887—Santa María de Dota and Pózo Azúl de Pirris, Costa Rica.

*Planesticus tristis cnephusa* (not *Merula leucauchen cnephusa* Bangs) Ridgway, Bull. U. S. Nat. Mus., 50, Part 4, p. 110, 1907—part, Costa Rica; Carriker, Ann. Carnegie Mus., 6, p. 742, 1910—part, El Copey, Santa María de Dota, Alajuela, and Miravalles, Costa Rica.

*Planesticus tristis leucauchen* Ridgway, Bull. U. S. Nat. Mus., 50, Part 4, p. 111, 1907—part, Costa Rica (Santa María); Carriker, Ann. Carnegie Mus., 6, p. 741, 1910—Santa María de Dota, Guayábo, Tenorio, La Vijagua, Volcan de Irazú, and Miravalles, Costa Rica.

*Range*.—Subtropical zone of Costa Rica except the extreme southwestern section.

3: Costa Rica (Peralta, 3).

***Turdus assimilis cnephusus* (Bangs).<sup>2</sup> SALVIN'S THRUSH.**

*Merula leucauchen cnephusa* Bangs, Proc. New Engl. Zool. Cl., 3, p. 92, 1902—Boquete, Chiriquí, Panama (type now in Museum of Comparative Zoology, Cambridge, Mass.); idem, Bull. Mus. Comp. Zool., 70, p. 320, 1930—Boquete (note on type).

<sup>1</sup> *Turdus assimilis oblitus* Miller and Griscom: Very close to *T. a. leucauchen*, but much more olivaceous or brownish above; chest, sides, and flanks likewise more brownish or buffy, less grayish. The sexual difference claimed by the describers we have not been able to corroborate, and are rather inclined to the belief that the unusually great variation is purely individual. Certain specimens run very close to *leucauchen*, others are not with certainty distinguishable from *cnephusa*.

Thirty specimens from Costa Rica examined.

<sup>2</sup> *Turdus assimilis cnephusus* (Bangs), while pretty close to the preceding form, is still browner both above and below.

Six specimens from Chiriquí and twenty from Costa Rica (Boruca) examined.

*Planesticus tristis panamensis* Griscom, Amer. Mus. Nov., 141, p. 7, 1924—Cerro Flores, eastern Chiriquí, Panama (type in the American Museum of Natural History, New York).

*Turdus leucauchen* (not of Sclater) Salvin, Proc. Zool. Soc. Lond., 1867, p. 132—Santa Fé and Cordillera de Tolé, Veragua (crit.); Sharpe, in Seebohm, Monog. Turd., 1, p. 223, 1898—part, Panama.

*Merula leucauchen* Bangs, Auk, 18, p. 368, 1901—Divala, Chiriquí.

*Turdus tristis* (not *Merula tristis* Swainson) Salvin, Proc. Zool. Soc. Lond., 1870, p. 180—Calovévora, Calobre, and Boquete de Chitrá, Veragua, and Volcan de Chiriquí, Panama (crit.); Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 15, 1879—part, Panama localities and references.

*Merula tristis* Cherrie, Anal. Inst. Fis.-Geog. Mus. Nac. Costa Rica, 4, p. 133, 1893—Boruca, Costa Rica.

*Merula leucauchen daguae* (not *Turdus daguae* Berlepsch) Bangs, Proc. New Engl. Zool. Cl., 3, p. 49, 1902—Boquete, Chiriquí.

*Planesticus tristis cnephosa* Ridgway, Bull. U. S. Nat. Mus., 50, Part 4, p. 110, 1907—part, Panama (Boquete, Divala); Bangs, Auk, 24, p. 304, 1907—Boruca, Costa Rica; Carriker, Ann. Carnegie Mus., 6, p. 742, 1910—part, El General de Térraba and Boruca, Costa Rica.

*Turdus assimilis cnephosa* Miller and Griscom, Amer. Mus. Nov., 184, p. 13, 1925—western Panama and extreme southwestern Costa Rica (crit.).

**Range.**—Subtropical zone of western Panama (Veraguas to Chiriquí) and extreme southwestern Costa Rica (Térraba Valley).

**\**Turdus assimilis daguae* Berlepsch.<sup>1</sup> DAGUA THRUSH.**

*Turdus daguae* Berlepsch, Ornith. Monatsber., 5, p. 176, 1897—San José, Rio Dagua, Colombia (type in Berlepsch Collection, now in Frankfort Museum, examined); Hartert, Nov. Zool., 5, p. 478, 1898—Cachaví, Prov. Esmeraldas, Ecuador (spec. examined); Sharpe, in Seebohm, Monog. Turd., 1, p. 225, 1898—San José, Colombia, and Cachaví, Ecuador (crit.); Miller and Griscom, Amer. Mus. Nov., 184, p. 16, 1925 (crit.).

*Turdus tristis daguae* Hellmayr, Proc. Zool. Soc. Lond., 1911, p. 1086—San Joaquin (Bahia del Chocó), Sipí, and Nóvita, Colombia (crit.); Bangs and Barbour, Bull. Mus. Comp. Zool., 65, p. 221, 1922—Mount Sapo, Darien; Chapman, Bull. Amer. Mus. N. H., 55, p. 580, 1926—north-western Ecuador.

<sup>1</sup>*Turdus assimilis daguae* Berlepsch: Differs from *T. a. cnephosa* in smaller size, shorter bill, much darker (bister brown) upper parts, and very much darker, nearly sepia brown color of the chest, sides, and flanks. Wing, (male) 103–110, (female) 104–107; tail, 78–87, (female) 76–84; bill, 17–18.

In coloration, this race comes nearest to *T. a. rubicundus*, but is still much more intensely colored. Although its much smaller dimensions and its shorter, entirely dusky bill serve to distinguish it without difficulty, yet the close similarity to the west Guatemalan form seems to afford sufficient evidence for its association with the *assimilis* group, which, as suggested by Miller and Griscom, may ultimately prove to be conspecific with *albicollis*.

**Material examined.**—Colombia: Nóvita, Rio Tamaná, 2; Sipí, 2; Rio Sipí, Rio San Juan, 1; San José, 4; San Joaquin, Bahia del Chocó, 1.—Ecuador, Prov. Esmeraldas: Cachaví, 1; Bulún, 4; Rio Cayapas, 1; Concepción, 1.

*Planesticus tristis daguae* Chapman, Bull. Amer. Mus. N. H., 36, p. 534, 1917  
—Juntas de Tamaná, Nóvita, and San José, Colombia.

*Range*.—Tropical zone of eastern Panama (Mount Sapo, Darien), western Colombia (Nóvita, Juntas de Tamaná, Sipi, San José, San Joaquin), and northwestern Ecuador (Prov. Esmeraldas).

1: Ecuador (Bulún, 1).

**\**Turdus albicollis paraguayensis* (Chubb).<sup>1</sup> PARAGUAYAN RUSTY-FLANKED THRUSH.**

*Merula albicollis paraguayensis* Chubb, Ibis, (9), 4, p. 608, 1910—Sapucay, Paraguay (type in British Museum).

*Turdus albicollis* (not of Vieillot) Allen, Bull. Amer. Mus. N. H., 3, p. 340, 1891—Chapada, Matto Grosso; Sharpe, in Seebohm, Monog. Turd., 1, p. 229, 1898—part, Chapada, Matto Grosso; Ihering and Ihering, Cat. Faun. Braz., 1, p. 317, 1907—part, Puerto Bertoni, Paraguay; Bertoni, Anal. Soc. Cient. Arg., 75, p. 95, 1913—Misiones; idem, Faun. Parag., p. 59, 1914—Alto Paraná, Paraguay.

*Merula albicollis* Bertoni, Anal. Cient. Parag., 1, No. 3, p. 2, 1904—Alto Paraná, Paraguay.

*Planesticus albicollis* Dabbene, Anal. Mus. Nac. Hist. Nat. Buenos Aires, 18, pp. 359, 435, 1910—Alto Paraná, Misiones, and Paraguay.

*Planesticus paraguayensis* Dabbene, Bol. Soc. Physis, 1, p. 352, 1914—Santa Ana and Iguassú, Misiones.

*Planesticus albicollis paraguayensis* Naumburg, Bull. Amer. Mus. N. H.,  
60, p. 330, 1930—part, Matto Grosso (Chapada).

*Range*.—Southwestern Brazil, in State of Matto Grosso (Chapada); Paraguay (Sapucay; Villa Rica; Puerto Bertoni, Alto Paraná); northeastern Argentina, Misiones (Alto Paraná; Iguassú; Santa Ana; Puerto Segundo; Eldorado; Rio Parana).

5: Paraguay (Villa Rica, 1); Argentina, Misiones (Rio Parana, 1; Puerto Segundo, 1; Eldorado, 2).

**\**Turdus albicollis albicollis* Vieillot. RUSTY-FLANKED THRUSH.**

*Turdus albicollis* Vieillot, Nouv. Dict. Hist. Nat., nouv. éd., 20, p. 227, 1818—"Brésil," coll. Delalande, Jr.=Rio de Janeiro, Brazil (type in Paris Museum examined); idem, Tabl. Enc. Méth., Orn., 2, livr. 91, p. 640, 1822—Brazil; Spix, Av. Spec. Nov. Bras., 1, p. 71, 1824—"in provincia Bahía" (error): Cabanis, Mus. Hein., 1, p. 5, 1851—Brazil (crit.); Pucheran, Proc. Zool. Acclimat. Soc. Paris, 1845, p. 103—Brazil (crit.);

<sup>1</sup>*Turdus albicollis paraguayensis* (Chubb): Similar to *T. a. albicollis*, but upper parts, including wing coverts and outer aspect of remiges, much more olivaceous, light brownish olive instead of raw umber or Dresden brown, and chest more grayish, less tinged with buffy.

A single adult male from Chapada, Matto Grosso, agrees with Paraguayan birds, being very different from *T. a. crotlopezus* and *T. a. contemptus* by reason of its orange brown flanks and deep ochraceous buff axillars and under wing coverts.

ran, Arch. Mus. Hist. Nat. Paris, 7, p. 351, 1855 (note on type); Burmeister, Syst. Uebers. Th. Bras., 3, p. 125, 1856—"Lagôa Santa, Minas Geraes," errore; Sclater, Proc. Zool. Soc. Lond., 27, p. 329, 1859—southeastern Brazil, "Paraguay and La Plata, Montevideo," errore (monog.); Pelzeln, Orn. Bras., 2, p. 93, 1868—Rio de Janeiro, Registre do Sai, and Ypanema (São Paulo); Sclater and Salvin, Exot. Orn., p. 141, pl. 71, 1869—southeastern Brazil, Prov. Rio de Janeiro, São Paulo, and "Minas Geraes" (ex Burmeister); Reinhardt, Vidensk. Medd. Naturhist. Foren., 1870, p. 452—occurrence in Minas Geraes denied; Berlepsch, Journ. Orn., 21, p. 229, 1873—Blumenau, Santa Catharina; Cabanis, l.c., 22, p. 82, 1874—Cantagallo, Rio de Janeiro; Seebohm, Cat. Bds. Brit. Mus., 5, p. 209, 1881—Brazil, from "Bahia" to Santa Catharina; Berlepsch and Ihering, Zeits. Ges. Orn., 2, p. 112, 1885—Taquara and Arroyo Grande, Rio Grande do Sul; Sharpe, in Seebohm, Monog. Turd., 1, p. 229, pl. 52, 1898—part, southeastern Brazil (excl. Chapada, Matto Grosso); Ihering, Rev. Mus. Paul., 3, p. 126, 1898—Iguapé, São Paulo; idem, l.c., 4, pp. 152, 198, 1900—Cantagallo (nest and eggs descr.); idem, Ann. Est. Rio Grande do Sul, 16, p. 116, 1899—Mundo Novo, Rio Grande do Sul; Hellmayr, Abhandl. 2. Kl. Bayr. Ak. Wiss., 22, No. 3, p. 618, 1906 (crit., note on Spix's spec.); Ihering and Ihering, Cat. Faun. Braz., 1, p. 317, 1907—part, Baurú and Victoria de Botucatu, São Paulo, and Novo Hamburgo, Rio Grande do Sul; Chrostowski, Compt. Rend. Soc. Scient. Varsovie, 5, pp. 484, 498, 1912—Vera Guarany, Paraná; Velho, Arch. Mus. Nac. Rio de Janeiro, 24, p. 264, 1923—Monte Serrat, Itatiaya.

*Turdus albiventer* (errore) Spix, Av. Spec. Nov. Bras., 1, pl. 69, fig. 1, 1824.

*Turdus crotopezus* (not of Lichtenstein) Euler, Journ. Orn., 15, p. 404, 1867—Cantagallo (nesting habits).

*Planesticus albicollis* Sztolcman, Ann. Zool. Mus. Pol. Hist. Nat., 5, p. 182, 1926—Invernadinha and Marechal Mallet, Paraná.

*Planesticus albicollis albicollis* Holt, Bull. Amer. Mus. N. H., 57, p. 313, 1928—Itatiaya.

**Range.**—Wooded region of southeastern Brazil, from Rio de Janeiro to Rio Grande do Sul.<sup>1</sup>

3: Brazil (São Sebastião, São Paulo, 2; Joinville, Santa Catharina, 1).

<sup>1</sup>Birds from Rio de Janeiro, São Paulo, and Santa Catharina, while somewhat variable in the tone of the upper parts, do not show any local differences, all agreeing in the decidedly rufescent brown (Dresden brown to raw umber, sometimes inclining to Brussels brown) coloration. In Rio Grande do Sul there is more variation, and, while the brownest individuals fully match Rio specimens, others run very close to *T. a. paraguayensis*.

The range of typical *albicollis* seems to be restricted to the coast provinces from Rio de Janeiro to northern Rio Grande do Sul. Burmeister's record from Lagôa Santa, Minas Geraes, has been questioned by Reinhardt, and the failure of other collectors to find it in that region tends to substantiate his doubts.

**Material examined.**—Rio de Janeiro: Rio de Janeiro, 4 (including the type); Registre do Sai, 1.—São Paulo: Ypanema, 1; São Sebastião, 3.—Paraná, 1.—Santa Catharina: Blumenau, 1; Joinville, 1.—Rio Grande do Sul: Taquara do Mundo Novo, 5.

**Turdus albicollis crotopezus** Lichtenstein.<sup>1</sup> BAHIAN WHITE-NECKED THRUSH.

*Turdus crotopezus* Lichtenstein, Verz. Doubl. Berliner Mus., p. 38, 1823—Bahia (excl. Azara, No. 80; type in Berlin Museum examined); Sclater, Proc. Zool. Soc. Lond., 27, p. 327, 1859—Brazil (part, diag., but not synonymy); idem, Cat. Coll. Amer. Bds., p. 3, 1862—Bahia; Sclater and Salvin, Exot. Orn., p. 145, pl. 73, 1869—Bahia; Seebohm, Cat. Bds. Brit. Mus., 5, p. 210, 1881—part, descr. and hab., Bahia; Sharpe, in Seebohm, Monog. Turd., 1, p. 227, pl. 50, fig. 1, 1898—part, Bahia.

*Turdus crotopezus crotopezus* Hellmayr, Journ. Orn., 50, p. 60, 1902—Bahia (crit.).

*Turdus crotopeza* Ihering and Ihering, Cat. Faun. Braz., 1, p. 317, 1907—"Rio de Janeiro, Minas Geraes," and Bahia.

*Range*.—Eastern Brazil, in State of Bahia.<sup>2</sup>

**Turdus albicollis contemptus** Hellmayr.<sup>3</sup> BOLIVIAN WHITE-NECKED THRUSH.

*Turdus crotopezus contemptus* Hellmayr, Journ. Orn., 50, p. 61, 1902—Bueyes, near Santa Cruz de la Sierra, Bolivia<sup>4</sup> (cotypes in Berlepsch Collection, now in the Frankfort Museum, and in Nehrkorn Collection, now in the Tring Museum); Hartert, Nov. Zool., 27, p. 476, 1920—Bueyes, Bolivia (note on cotype).

<sup>1</sup> *Turdus albicollis crotopezus* Lichtenstein, doubtless the northern representative of *T. albicollis*, forms the passage to the *T. phaeopygus* group by the reduction, both in extent and intensity, of the flank coloration as well as by the color of the axillaries and under wing coverts. It shares the yellow mandible and the conspicuously rufescent brown dorsal plumage with *T. albicollis*, but differs by tawny olive (instead of deep ochraceous) flanks, pale dingy buff (instead of deep ochraceous buff) axillaries and under wing coverts, and slightly lighter, more grayish chest. In the last-named character it approaches *T. phaeopygus*, and the close relationship to that form is even more strongly emphasized by the restriction of the dusky markings on the crissum and the deep mouse gray color of all the upper tail coverts.

Wing of five adults, 108–113; tail, 87–93; bill, 19–20.

*Material examined*.—Bahia, 5.

<sup>2</sup> Only known from Bahia trade skins. According to Reinhardt (Vidensk. Medd. Naturhist. Foren., 1870, p. 452), *T. crotopezus* was reported by Lund to breed on limestone cliffs near Lagoa Santa, Minas Geraes, but as no specimens were preserved, the identification is open to doubt.

<sup>3</sup> *Turdus albicollis contemptus* Hellmayr: Most nearly related to *T. a. crotopezus*, but larger, with longer spurious (first) primary; upper parts brighter, more olivaceous; flanks slightly more fulvous; axillaries and under wing coverts deeper buff. Wing (five adults), 117–120; tail, 95–100; bill, 19–20.

By the brighter coloration of the flanks and under wing coverts this form shows a slight approach to *T. a. paraguayensis*, a tendency which is also enhanced by certain specimens having only the longer upper tail coverts mouse gray.

*Material examined*.—Bolivia: Omeja, 2; Songo, 1; Bueyes, Santa Cruz, 2; Rio Surutú, 1; Rio Yapacani, 1.

<sup>4</sup> Of the Peruvian localities quoted in the range, Amable Maria is referable to *T. a. spodiolaemus*, while the others pertain to *T. a. berlepschi*.

*Turdus crotopezus* (not of Lichtenstein) Sclater and Salvin, Proc. Zool. Soc. Lond., 1879, p. 591—Tilotilo and Rio Toro, Yungas of La Paz, Bolivia; Salvadori, Boll. Mus. Zool. Torino, 12, No. 292, p. 3, 1897—Caiza, Bolivia, Chaco (descr. juv.); Sharpe, in Seebohm, Monog. Turd., 1, p. 227, 1898—part, Tilotilo and Rio Toro, Bolivia.

**Range.**—Yungas of Bolivia, in departments of La Paz (Tilotilo; Rio Toro; Songo; Omeja), Santa Cruz (Bueyes; Rio Surutú; Rio Yapacani), and Tarija (Caiza).

***Turdus albicollis spodiolaemus* Berlepsch and Stolzmann.<sup>1</sup>**  
CHANCHAMAYO WHITE-NECKED THRUSH.

*Turdus phaeopygus spodiolaemus* Berlepsch and Stolzmann, Proc. Zool. Soc. Lond., 1896, p. 326—La Gloria, Chanchamayo, Dept. Junín, Peru (type in Warsaw Museum examined); Hellmayr, Journ. Orn., 50, pp. 64, 65, 1902—La Gloria (crit.); Sztolcman and Domaniewski, Ann. Zool. Mus. Pol. Hist. Nat., 6, p. 155, 1927—La Gloria (note on type).

*Turdus crotopezus* (not of Lichtenstein) Taczanowski, Proc. Zool. Soc. Lond., 1874, p. 503—Amable Maria, Dept. Junín (spec. in Warsaw Museum examined); idem, Orn. Pér., 1, p. 492, 1884—part, Amable Maria; Seebohm, Cat. Bds. Brit. Mus., 5, p. 210, 1881—part, central Peru; Sharpe, in Seebohm, Monog. Turd., 1, p. 227, 1898—part, Amable Maria.

*Turdus spodiolaemus* Sharpe, in Seebohm, Monog. Turd., 1, p. 217, 1898—La Gloria (crit.).

**Range.**—Tropical zone of central Peru, in Dept. Junín (La Gloria, Chanchamayo, Amable Maria).

**\**Turdus albicollis berlepschi* Todd.<sup>2</sup> UPPER AMAZONIAN WHITE-NECKED THRUSH.**

<sup>1</sup> *Turdus albicollis spodiolaemus* Berlepsch and Stolzmann is too little known to admit of final judgment on its validity. The three specimens—two adult males and a female in first annual plumage—which have been available for examination, are closely similar to *T. a. berlepschi*, but less rufescent above (more like *T. a. phaeopygus*); the blackish throat-streaking is decidedly broader, thus reducing the white margins, and the lower mandible is wholly or partly yellow. Besides, the mouse gray of the rump is more restricted, and the axillaries are slightly tinged with buffy. Wings and tail are a little longer, the bill heavier. Some of these characters indicate a variation toward the Bolivian *T. a. contemptus*, and it is quite possible that more material will show *T. a. spodiolaemus* to be a valid race. Wing (two adult males), 112, 115; tail, 89, 98; bill, 19.

**Material examined.**—Peru: La Gloria (the type), 1; Chanchamayo, 1; Amable Maria, 1.

<sup>2</sup> *Turdus albicollis berlepschi* Todd merely differs from *T. a. phaeopygus* by somewhat darker, more rufescent coloration of the upper parts. The divergency is noticeable in a series, though single individuals are not always distinguishable.

Two adult males from the upper Rio Negro agree with specimens from Peru, and one from Bolivia (Falls of the Madeira, coll. H. H. Rusby) is likewise an extreme example of the present form with very rufous dorsal surface.

**Material examined.**—Colombia: Cuembí, Rio Putumayo, 3; "Bogotá," 8.—Ecuador: Sarayacu, 2; Macas, 1; Rio Santiago, 1; Zamora, 1.—Brazil, Rio Negro: Castanheiro, 1; Marabitanas, 1.—Peru: Iquitos, 1; Rioja, 1; Huambo, 1; Guayabamba, 1.—Bolivia: Falls of the Madeira, 1.

*Turdus phaeopygus berlepsi* Todd, Proc. Biol. Soc. Wash., 44, p. 51, 1931—Arimã, Rio Purús (type in the Carnegie Museum).

*Turdus saturatus* (Berlepsch MS.) Taczanowski,<sup>1</sup> Orn. Pér., 3, p. 508, 1886—based on *Turdus phaeopygioides* Taczanowski (not of Seeböhm), Orn. Pér., 1, p. 490, 1884; Chyavetas and Chamicuros, eastern Peru (type from Chamicuros in the British Museum).

*Turdus phaeopygus saturatus* Berlepsch and Stolzmann, Proc. Zool. Soc. Lond., 1896, p. 326 (in text)—eastern Ecuador and "Bogotá" (crit.); Hellmayr, Journ. Orn., 50, pp. 63, 64, 69, 1902 (crit.); Chapman, Bull. Amer. Mus. N. H., 55, p. 580, 1926—Rio Suno, below San José, and Zamora, Ecuador, and Chinchipe Valley, Peru; Berlioz, Bull. Mus. Hist. Nat. Paris, 33, p. 73, 1927—Rio Suno, Ecuador.

*Turdus phaeopygus* (not of Cabanis) Sclater, Proc. Zool. Soc. Lond., 26, p. 64, 1858—Rio Napo (crit.); idem, l.c., 27, p. 327, 1859—part, New Granada and eastern Ecuador; Sclater and Salvin, l.c., 1867, p. 568—part, Cobati, Rio Negro; idem, l.c., 1867, pp. 749, 754—Chyavetas, Peru (crit.); idem, l.c., 1873, p. 255—Chyavetas and Chamicuros, Peru; Pelzeln, Orn. Bras., 2, p. 93, 1868—part, Castanheiro and Marabitanas, Rio Negro (spec. examined); Sclater and Salvin, Exot. Orn., p. 149, 1869—part, Rio Negro, Chyavetas (Peru), Rio Napo (Ecuador), and Bogotá; Seeböhm, Cat. Bds. Brit. Mus., 5, pp. 208, 404, 1881—part, eastern Ecuador and north-eastern Peru; Allen, Bull. Amer. Mus. N. H., 2, p. 78, 1889—Falls of the Madeira, Bolivia; Sharpe, in Seeböhm, Monog. Turd., 1, p. 213, pl. 49, fig. 1, 1898—part, Rio Negro (Cobati and Castanheiro), Peru (Chyavetas, Chamicuros, Iquitos, Guayabamba), Bolivia (Falls of the Madeira), Ecuador (Sarayacu), and Colombia (Bogotá); Salvadori and Festa, Boll. Mus. Zool. Torino, 14, No. 357, p. 4, 1899—Zamora and Gualaquiza, Ecuador; Hellmayr, Journ. Orn., 50, pp. 65, 69, 1902—part, Ecuador, northern Peru, Colombia, and Rio Negro.

*Planesticus phaeopygus* Heine and Reichenow, Nomencl. Mus. Hein., p. 3, 1890—part, Macas, Ecuador; Chapman, Bull. Amer. Mus. N. H., 36, p. 533, 1917—La Morelia and Florencia, Colombia.

*Turdus erotopezus* (not of Lichtenstein) Taczanowski, Proc. Zool. Soc. Lond., 1882, p. 4—Huambo, Peru (spec. in Warsaw Museum examined); idem, Orn. Pér., 1, p. 492, 1884—part, Huambo, Chirimoto, and Tambillo; Sharpe, in Seeböhm, Monog. Turd., 1, p. 227, 1898—part, Huambo, Chirimoto, and Tambillo.

**Range.**—Upper Amazonia, from the eastern base of the eastern Andes of Colombia (La Morelia and Florencia, Rio Caquetá; Cuembí, Rio Putumayo) south through eastern Ecuador and northern and eastern Peru (Rio Chinchipe, Dept. Cajamarca; Chyavetas, Chamicuros, and Iquitos, Dept. Loreto; Rioja and Rio Huambo, Dept. San Martín) to northern Bolivia (Falls of the Madeira, Dept. Beni)

<sup>1</sup> *Turdus saturatus* Taczanowski is rendered untenable by *Peliocichla saturata* Cabanis (Journ. Orn., 30, p. 320, 1882—Cameroons and Chinchoxo), an African thrush now referred to the genus *Turdus*.



and east to western Brazil (upper Rio Negro; Rio Purús, and Rio Solimões).

1: Peru (Rioja, Dept. San Martín, 1).

**\**Turdus albicollis phaeopygus* Cabanis. GRAY-RUMPED THRUSH.**

*Turdus phaeopygus* Cabanis, in Schomburgk, Reisen Brit. Guiana, 3, p. 666, "1848" [=early in 1849]—British Guiana (type in Berlin Museum); Sclater, Proc. Zool. Soc. Lond., 27, p. 327, 1859—part, Guiana and northern Brazil; idem, Cat. Coll. Amer. Bds., p. 3, 1862—Cayenne, Pará; Sclater and Salvin, Proc. Zool. Soc. Lond., 1867, p. 568, pl. 29 (=juv.)—part, Maroni River, Surinam; Pelzeln, Orn. Bras., 2, p. 93, 1868—part, Borba and Pará; Sclater and Salvin, Exot. Orn., p. 149, pl. 75, 1869—part, Guiana, Cayenne, Surinam, and Pará; Layard, Ibis, 1873, p. 376—Pará; Seebohm, Cat. Bds. Brit. Mus., 5, p. 208, 1881—part, Guiana and Pará; Salvin, Ibis, 1885, p. 197—Bartica Grove, Camacusa, Merumé Mountains, and Roraima, British Guiana; Sharpe, in Seebohm, Monog. Turd., 1, p. 213, 1898—part, Guianas and Pará; Berlepsch and Hartert, Nov. Zool., 9, p. 3, 1902—mountains west of Suapure and La Pricion, Caura, Venezuela; Hellmayr, Journ. Orn., 50, pp. 63, 65, 69, 1902—part, Guianas, Pará, and Rio Madeira; Ménégau, Bull. Mus. Hist. Nat. Paris, 10, p. 115, 1904—Ouanary, French Guiana; idem, l.c., 13, p. 495, 1907—French Guiana; Hellmayr, Nov. Zool., 13, p. 353, 1906—Santo Antonio do Prata, Pará; Berlepsch, l.c., 15, pp. 105, 316, 1908—Ipusin, Approuague River, and Ouanary, French Guiana; Penard, Vog. Guyana, 2, p. 544, 1910—Surinam (habits); Snethlage, Bol. Mus. Goeldi, 8, p. 495, 1914—Pará, Providencia, Apehú, Peixe-Boi, Santo Antonio do Prata, Rio Guamá (Ourém), and Cametá (Rio Tocantins), Brazil; idem, Bol. Mus. Nac. Rio de Janeiro, 2, No. 6, p. 59, 1926—Tury-assú, Maranhão.

*Turdus phaeopygus phaeopygus* Hellmayr, Nov. Zool., 14, p. 344, 1907—Humaytá, Rio Madeira; idem, l.c., 17, p. 258, 1910—Calama, Rio Madeira; idem, Abhandl. Bayr. Akad. Wiss., math.-phys. Kl., 26, No. 2, pp. 4, 86, 1912—Peixe-Boi, Ipitinga (Rio Acará), and Pará localities.

*Planesticus phaeopygus* Heine and Reichenow, Nomencl. Mus. Hein., p. 3, 1890—part, Guiana; Chubb, Bds. Brit. Guiana, 2, p. 386, 1921—British Guiana.

*Planesticus phaeopygus phaeopygus* Cherrie, Sci. Bull., Mus. Brookl. Inst., 2, p. 140, 1916—Caura Valley, Venezuela; Beebe, Zoologica (N.Y.), 2, p. 96, 1916—Pará; idem, Trop. Wild Life, 1, p. 135, 1917—Bartica Grove.

*Turdus poileau*<sup>1</sup> Bonaparte, Compt. Rend. Acad. Sci. Paris, 38, p. 4, 1854—part, Cayenne (type in Paris Museum examined); idem, Not. Orn. Coll. Delattre, p. 28, 1854—Cayenne (part); Pucheran, Arch. Mus. Hist. Nat. Paris, 7, p. 377, 1855—Cayenne (part).

**Range.**—French, Dutch, and British Guiana; eastern Venezuela (Caura Valley); northeastern Brazil, from the wooded coast district of Maranhão (Tury-assú) west to the Rio Madeira.<sup>2</sup>

<sup>1</sup>*Turdus poileau* Lesson (Traité d'Orn., p. 409, 1831) is a *nomen nudum*.

<sup>2</sup>Since the above was written, Mr. Todd (Proc. Biol. Soc. Wash., 44, pp. 50-51, 1931) has subdivided the present form by describing *T. p. cayennensis*,

4: British Guiana (Demerara, 3); Brazil (Serra Grande, Rio Branco, 1).

***Turdus albicollis phaeopygoides* Seebohm.<sup>1</sup> TOBAGO GRAY-RUMPED THRUSH.**

*Turdus phaeopygoides* Seebohm, Cat. Bds. Brit. Mus., 5, p. 404 (in text), 1881—Tobago (type in British Museum examined); Sharpe, in Seebohm, Monog. Turd., 1, p. 215, pl. 49, fig. 2, 1898—Tobago.

*Turdus jamaicensis* (not of Gmelin) Jardine, Ann. Mag. Nat. Hist., 20, p. 329, 1847—Tobago.

*Turdus phaeopygus* (not of Cabanis) Sclater, Proc. Zool. Soc. Lond., 27, p. 327, 1859—part, Trinidad and Tobago; Sclater and Salvin, Exot. Orn., p. 149, 1869—part, Trinidad and Tobago; Seebohm, Cat. Bds. Brit. Mus., 5, p. 209, 1881—part, Trinidad and Tobago; Sharpe, in Seebohm, Monog. Turd., 1, p. 213, 1898—part, Trinidad, Tobago, and Venezuela; Dalmás, Mém. Soc. Zool. France, 13, p. 132, 1900—Tobago.

*Turdus phaeopygus* Léotaud, Ois. Trinidad, p. 197, 1866—Trinidad.

*Merula phaeopygus* Chapman, Bull. Amer. Mus. N. H., 6, p. 22, 1894—Trinidad (ex Léotaud); idem, l.c., 7, p. 322, 1895—Caparo and Caura, Trinidad.

*Planesticus phaeopygus* Beebe, Zoologica (N.Y.), 1, p. 100, 1909—Guanoco, Orinoco Delta, Venezuela.

whose range is given as extending from French Guiana south to the north bank of the Amazon (Obidos and Manacapurú), and *T. p. coloratus* from Colonia do Moju, Santarém, east side of the Rio Tapajóz, Brazil. Three adults from French Guiana are indeed deeper, less reddish in tone, on the upper parts than any other example seen by us. If separable, this form must, however, be called *T. a. poiteaui*, since Bonaparte used this name in connection with the description of a bird from Cayenne which we have examined in the Paris Museum (see p. 371, footnote 1). Of the race named *T. p. coloratus* by Mr. Todd we have no topotypical material, but ten specimens from the Pará region, on renewed comparison, prove to be indistinguishable from a good series of British Guianan skins, while two from Borba do not appear to be different either. These facts seem to indicate that the problem of the geographic variation of this thrush is by no means yet satisfactorily established.

*Material examined.*—French Guiana: Saint-Laurent-du-Maroni, 1; Ipousin, Approuague River, 2.—British Guiana: Bartica Grove, 3; Quonga, 1; Roraima, 2; Demerara, 4.—Venezuela: La Pricion and Suapure, Caura Valley, 9.—Brazil: Santo Antonio do Prata, 4; Ipitinga, Rio Acará, 2; Peixe-Boi, 1; Pará, 3; Serra Grande, Rio Branco, 1; Rio Madeira, Borba, 2; Calama, 2; Humaytá, 1.

<sup>1</sup>*Turdus albicollis phaeopygoides* Seebohm: Similar to *T. a. phaeopygus*, but slightly larger and upper parts decidedly more olivaceous, less brownish. Wing of adult males: 106–113 (Tobago); 108–112 (Trinidad); 107–108 (Santa Ana); 108–112 (Cariacito).

This form presents the usual amount of variation. Although single individuals are not always easily told apart, the points of distinction are appreciable in a series of smooth skins. Birds from northeastern Venezuela are identical with those from the islands.

*Material examined.*—Tobago: Man o' War Bay, 9; Castare, 1; Mariah, 1; unspecified, 2 (including the type).—Trinidad: Valencia, 4; Caparo, 6; Aripo, 10.—Venezuela: Cariacito, Paria Peninsula, Sucre, 2; Santa Ana Valley, Sucre, 3; Guanoco, Delta Amacuro, 1.

*Turdus phaeopygus phaeopygoides* Hellmayr, Journ. Orn., **50**, pp. 65, 69, 1902—Trinidad and Tobago (crit.); idem, Nov. Zool., **13**, p. 4, 1906—Trinidad (Valencia, Caparo, Aripo), Tobago (Mariah, Castare), and northeastern Venezuela (Santa Ana, inland of Cumaná, and Guanoco, Orinoco Delta) (crit.).

*Merula phaeopygus phaeopygoides* Cherrie, Sci. Bull., Mus. Brookl. Inst., **1**, p. 187, 1906—St. Mathews, Aripo, Trinidad.

*Planesticus phaeopygus phaeopygoides* Cherrie, Sci. Bull., Mus. Brookl. Inst., **1**, p. 354, 1908—Trinidad; idem, l.c., **2**, p. 140, 1916—Guanoco, Orinoco Delta; Stone, Proc. Acad. Nat. Sci. Phila., **65**, p. 207, 1913—Cariaquito, Paria Peninsula, Venezuela (spec. examined).

*Range*.—Islands of Trinidad and Tobago, and extreme north-eastern Venezuela (Cariaquito and Santa Ana, Sucre; Guanoco, Delta Amacuro).

**\**Turdus albicollis minusculus* (Bangs).<sup>1</sup> LESSER GRAY-RUMPED THRUSH.**

*Merula phaeopyga minuscula* Bangs, Proc. Biol. Soc. Wash., **12**, p. 181, 1898—Pueblo Viejo (type) and Palomina, Santa Marta (type in coll. Bangs, now in Museum of Comparative Zoology, Cambridge, Mass.); idem, l.c., **13**, p. 108, 1899—La Concepción and Chirua, Santa Marta; Allen, Bull. Amer. Mus. N. H., **13**, p. 182, 1900—Valparaiso and Bonda, Santa Marta; Bangs, Bull. Mus. Comp. Zool., **70**, p. 328, 1930—Pueblo Viejo (crit.).

*Turdus phaeopygus minusculus* Hellmayr, Journ. Orn., **50**, pp. 65, 69, 1902—Santa Marta (crit.).

*Merula phaeopyga* (not *Turdus phaeopygus* Cabanis) Bangs, Proc. Biol. Soc. Wash., **12**, p. 160, 1898—Pueblo Viejo, Santa Marta.

*Turdus phaeopygus phaeopygus* Hellmayr and Seilern, Arch. Naturg., **78**, A, Heft 5, p. 37, 1912—Cumbre de Valencia and Las Quiguas, Carabobo, Venezuela; Todd and Carriker, Ann. Carnegie Mus., **14**, p. 399, 1922—Valparaiso, Cincinnati, La Tigra, Las Vegas, Minca, Agua Dulce, Don Diego, and Pueblo Viejo, Santa Marta (crit., habits).

<sup>1</sup> *Turdus albicollis minusculus* (Bangs): Similar in coloration (olivaceous upper parts) to *T. a. phaeopygoides*, but decidedly smaller. Wing (males), 100–104, rarely 107; tail, 84–88.

Direct comparison with adequate topotypical material shows that Hellmayr and Seilern erred in assigning birds from Carabobo, Venezuela, to *phaeopygus*. The Venezuelan specimens, apart from being very slightly larger, a difference likely to disappear in a larger series, agree, as a matter of fact, in general coloration as well as in range of variation with those from Santa Marta. While not a strongly marked race, *T. a. minusculus* cannot well be united to either *phaeopygus* or *phaeopygoides*, combining, as it does, the lesser dimensions of the former with the olivaceous upper parts of the latter. Two birds from La Colorada, Boyacá, may provisionally be referred here. One is as olive-backed as the general run of *minusculus*, but the other is much more rufescent above than any Santa Martan or Venezuelan example, and closely approaches *T. a. berlepschi*.

*Material examined*.—Venezuela, Carabobo: Las Quiguas, 3; Cumbre de Valencia, 7.—Colombia, Santa Marta region: Palomina, 1; Valparaiso, 5; Minca, 1; La Concepción, 1; Chirua, 1; Pueblo Viejo, 3; Bonda, 2; Las Vegas, 3.—Colombia: La Colorada, Boyacá, 2.

*Range*.—Northern Venezuela, in State of Carabobo (Cumbre de Valencia; Las Quiguas, upper San Esteban Valley), and north-eastern Colombia (Santa Marta region; also at La Colorada, Boyacá, eastern Andes).

1: Colombia (Chirua, Santa Marta, 1).

**\**Turdus jamaicensis* Gmelin. WHITE-EYED THRUSH.**

*Turdus jamaicensis* Gmelin, Syst. Nat., 1, (2), p. 809, 1789—based on "Jamaican Thrush" Latham, Gen. Syn. Bds., 2, (1), p. 20, Jamaica (type in British Museum); Sclater, Proc. Zool. Soc. Lond., 27, p. 327, 1859—Jamaica (monog.); March, Proc. Acad. Nat. Sci. Phila., 1863, p. 292—Jamaica (habits); Seebohm, Cat. Bds. Brit. Mus., 5, p. 208, 1881—Moneague, Jamaica (monog.); Sharpe, in Seebohm, Monog. Turd., 1, p. 211, pl. 48, 1898—Jamaica (monog.); Danforth, Auk, 45, p. 488, 1928—Lumsden, Jamaica.

*Turdus lereboulleti* Bonaparte, Compt. Rend. Acad. Sci. Paris, 38, p. 3, 1854; idem, Not. Orn. Coll. Delattre, p. 27, 1854—"Columbia," errore (type in Strasbourg Museum).

*Merula jamaicensis* Gosse, Bds. Jamaica, p. 142, 1847—Jamaica (habits); idem, Illust. Bds. Jamaica, pl. 24, 1849; Cory, Auk, 3, p. 2, 1886—Jamaica (monog.); idem, Bds. West Ind., p. 16, 1889—Jamaica (monog.); Scott, Auk, 10, p. 342, 1893—mountains of Jamaica.

*Merula leucophthalma* (Hill MS.) Gosse, Bds. Jamaica, p. 142, 1847—Jamaica.

*Turdus capucinus* (Hartlaub MS.) Bonaparte, Consp. Gen. Av., 1, p. 271, 1850—Jamaica.

*Planesticus jamaicensis* Ridgway, Bull. U. S. Nat. Mus., 50, Part 4, p. 107, 1907—Jamaica (monog., full bibliog.); Bangs and Kennard, Handbook of Jamaica, 1920, p.—[Sep., p. 13], 1920—Jamaica.

*Range*.—Island of Jamaica, Greater Antilles.

3: Jamaica (St. Georges, Portland, 1; unspecified, 2).

**\**Turdus grayi umbrinus* Griscom.<sup>1</sup> WEST GUATEMALAN THRUSH.**

*Turdus grayi umbrinus* Griscom, Amer. Mus. Nov., 438, p. 5, 1930—Finca El Cipres, near Mazatenango, Pacific slope, Guatemala (type in Dwight Coll., in the American Museum of Natural History, New York).

*Turdus grayi* (not of Bonaparte) Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 18, 1879—part, west Guatemalan references and localities; Seebohm, Cat. Bds. Brit. Mus., 5, p. 219, 1881—Guatemala (part);

<sup>1</sup>*Turdus grayi umbrinus* Griscom: Nearest to *T. g. grayi*, but more richly colored throughout, the under parts being bright isabella brown instead of clay color or brownish buff, and the dorsal surface decidedly more brownish, less olive.

This is a well-marked race, and when specimens in corresponding plumage are compared, there is no difficulty in separating it from *T. g. grayi*, which, in its coloration, is about halfway between the darkest (*umbrinus*) and the palest (*tamaulipensis*) forms of this thrush.

Sharpe, in Seebohm, Monog. Turd., 1, p. 261, 1898—part, western Guatemala; Lantz, Trans. Kansas Acad. Sci., 16, p. 224, 1899—part, Naranjo, Guatemala.

*Planesticus grayi* Dearborn, Field Mus. Nat. Hist., Orn. Ser., 1, p. 136, 1907—San José (Escuintla), Mazatenango, Amatitlan, and Lake Atitlan, Guatemala (crit.).

*Range*.—Pacific lowlands of Guatemala.

7: Guatemala (San José, Escuintla, 1; Mazatenango, 2; Lake Amatitlan, 1; Lake Atitlan, 3).

**\**Turdus grayi grayi* Bonaparte. GRAY'S THRUSH.**

*Turdus grayi*<sup>1</sup> Bonaparte, Proc. Zool. Soc. Lond., 5, "1837," p. 118, pub. June 14, 1838—Guatemala: Alta Vera Paz suggested as type locality by Griscom (Amer. Mus. Nov., 438, p. 6, 1930) (type in coll. of Velasquez, now in Liverpool Museum); Sclater, Proc. Zool. Soc. Lond., 27, p. 330, 1859—Cordoba and Orizaba, Mexico (monog.); idem, l.c., p. 362—Jalapa, Vera Cruz; idem, l.c., p. 370—Choapam and Villa Alta, Orizaba; Sclater and Salvin, Ibis, 1859, p. 5, pl. 5, fig. 7 (egg)—Dueñas, Guatemala (habits, nest, and eggs descr.); Sclater, Cat. Coll. Amer. Bds., p. 4, 1862—Tactic (Vera Paz), Guatemala, and Mexico; idem, Proc. Zool. Soc. Lond., 1864, p. 172—valley of Mexico; Baird, Rev. Amer. Bds., 1, p. 26, 1864—part, Jalapa, Mirador, Cordoba (Mexico), Tactic and Coban (Guatemala); Sclater and Salvin, Proc. Zool. Soc. Lond., 1870, p. 836—San Pedro, Honduras; Salvin, Ibis, 1872, p. 314—Chontales, Nicaragua; Lawrence, Bull. U. S. Nat. Mus., 4, p. 11, 1876—Santa Efigenia, Oaxaca; Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 18, 1879—part, Mexico, eastern Guatemala, Salvador, Honduras, and Nicaragua; Seebohm, Cat. Bds. Brit. Mus., 5, p. 219, 1881—Mexico and Guatemala (part); Sharpe, in Seebohm, Monog. Turd., 1, p. 261, 1898—part, Mexico (localities in Vera Cruz, Mexico, Puebla, Oaxaca, Guerrero, Tabasco, and Chiapas), eastern Guatemala, Honduras, Salvador, Nicaragua.

*Turdus tristis* (not *Merula tristis* Swainson) Sclater, Proc. Zool. Soc. Lond., 24, p. 294, 1856—Cordova, Vera Cruz.

*Turdus helvolus* (Lichtenstein MS.) Bonaparte, Compt. Rend. Acad. Sci. Paris, 38, p. 4, 1854—quoted as not different from *T. grayi*, of Mexico; idem, Not. Orn. Coll. Delattre, p. 28, 1854.

*Merula grayi* Nutting, Proc. U. S. Nat. Mus., 6, p. 380, 1883—Sucuyá, Nicaragua; idem, l.c., p. 397, 1883—Los Sábalos, Nicaragua; Ferrari-Perez, l.c., 9, p. 132, 1886—Jalapa, Mexico; Ridgway, l.c., 10, p. 584, 1888—Segoviá River, Honduras; Richmond, l.c., 16, p. 482, 1893—Rio Escondido and Greytown, Nicaragua (nest and eggs descr.); Chapman, Bull. Amer. Mus. N. H., 10, p. 20, 1898—Jalapa, Vera Cruz (song); Lantz, Trans. Kansas Acad. Sci., 16, p. 224, 1899—part, Coatepec, Mexico, and Granada, Nicaragua; Skinner, Condor, 3, p. 93, 1901—Tapachula, Chiapas (habits).

*Merula grayii grayii* Bangs, Bull. Mus. Comp. Zool., 39, p. 152, 1903—Ceiba and Yaruca, Honduras.

<sup>1</sup> Sometimes spelt "*grayii*."

*Planesticus grayi grayi* Ridgway, Bull. U. S. Nat. Mus., 50, Part 4, p. 117, 1907—part, southern Mexico, Guatemala, and Honduras; Peters, Auk, 30, p. 376, 1913—Camp Mengel, Quintana Roo.

*Planesticus grayi casius* (not of Bonaparte) Ridgway, Bull. U. S. Nat. Mus., 50, Part 4, p. 120, 1907—part, Honduras and Nicaragua; Rendahl, Ark. Zool., 12, No. 8, p. 36, 1919—part, San Juan del Norte and Masaya, Nicaragua.

*Turdus grayi grayi* Hellmayr, Journ. Orn., 50, pp. 47, 50, 1902—part (crit.); Bangs and Peters, Bull. Mus. Comp. Zool., 67, p. 482, 1927—Presidio and Motzorongo, Vera Cruz; idem, l.c., 68, p. 399, 1928—Tapanatepec, Oaxaca; Austin, l.c., 69, p. 386, 1929—Mountain Cow, Cayo district, British Honduras; Peters, l.c., 69, p. 459, 1929—Lancetilla and Tela, Honduras.

*Planesticus grayi tamaulipensis* (not *Merula tamaulipensis* Nelson) Dearborn, Field Mus. Nat. Hist., Orn. Ser., 1, p. 136, 1907—part, Los Amates and El Rancho, Guatemala.

*Turdus grayi megas* Miller and Griscom, Amer. Mus. Nov., 183, p. 3, 1925—Matagalpa, Nicaragua (type in the American Museum of Natural History, New York).

*Range*.—Southern Mexico (except arid coastal plain from Tamaulipas to Yucatan) in states of Vera Cruz, Puebla, Mexico, Guerrero, Oaxaca, Tabasco, and Chiapas and in Territory of Quintana Roo,<sup>1</sup> southwards through eastern Guatemala, British Honduras, Salvador,<sup>2</sup> and Honduras to Nicaragua.<sup>3</sup>

18: Mexico (valley of Mexico, 1); Guatemala (Vera Paz, 1; Los Amates, Izabal, 3; El Rancho, Zacapa, 4); British Honduras (Cayo district, 1); Nicaragua (San Rafael del Norte, 1; San Emilio, Lake Nicaragua, 1; San Gerónimo, Chinandega, 6).

<sup>1</sup> Grayson (Proc. Bost. Soc. N. H., 14, p. 276, 1872) recorded the breeding of *T. grayi* at Jauja, Tepic, and on the Tres Marias Islands, and the species was included by Lawrence (Mem. Bost. Soc. N. H., 2, p. 266, 1874) in his final report on Grayson's collections. This statement has already been refuted by Nelson (N. Amer. Fauna, 14, p. 62, 1899), who points out that the Tres Marias record was based on faded specimens of *T. auropalliatus graysoni*, while the birds collected at Tepic are referable to "*Merula tristis*" [= *Turdus assimilis renominatus*]. It will be noted that both Sharpe (in Seebohm's "Monograph of the Turdidae") and Ridgway accepted the Tepic locality without questioning its correctness.

<sup>2</sup> According to A. van Rossem (in litt.), the whole of El Salvador is occupied by "*T. g. megas*," though occasional specimens verge towards *T. g. umbrinus*.

<sup>3</sup> I do not see how Nicaraguan birds (*T. g. megas*) can be properly separated from *T. g. grayi*, if we follow Griscom in regarding east Guatemalan specimens as typical of the latter. While admitting that some individuals, by slightly paler under parts, show a tendency in the direction of *T. g. casius*, the majority cannot be told, so far as I can see, either in size or color from the general run of Mexican or east Guatemalan birds.

In addition to our own material, I have examined in this connection the splendid series of more than fifty specimens in the collection of the British Museum.

**\**Turdus grayi tamaulipensis* (Nelson).<sup>1</sup> TAMAULIPAS THRUSH.**

*Merula tamaulipensis* Nelson, Auk, 14, p. 75, 1897—Ciudad Victoria, Tamaulipas, eastern Mexico (type in U. S. National Museum).

*Turdus grayi* (not of Bonaparte) Lawrence, Ann. Lyc. Nat. Hist. N. Y., 9, p. 199, 1869—Mérida, Yucatan; Boucard, Proc. Zool. Soc. Lond., 1883, p. 439—Yucatan (habits); Salvin, Ibis, 1888, p. 243—Islands of Meco, Mugerres, and Cozumel (crit.); Sharpe, in Seebohm, Monog. Turd., 1, p. 261, 1898—part, Nuevo Leon, San Luis Potosi, Tamaulipas, Yucatan, islands of Meco, Mugerres, and Cozumel.

*Merula grayi* Richmond, Proc. U. S. Nat. Mus., 18, p. 632, 1896—Alta Mira, near Tampico, Tamaulipas; Cole, Bull. Mus. Comp. Zool., 50, p. 135, 1906—Chichen Itza, Yucatan.

*Turdus grayi tamaulipensis* Hellmayr, Journ. Orn., 50, pp. 50, 52, 1902—Victoria (Tamaulipas), Temax and Peto, Yucatan (crit.).

*Planesticus grayi tamaulipensis* Ridgway, Bull. U. S. Nat. Mus., 50, Part 4, p. 119, 1907—arid coastal plain of southeastern Mexico (monog.); Phillips, Auk, 28, p. 80, 1900—Galindo and Realito, Tamaulipas; Griscom, Amer. Mus. Nov., 235, p. 15, 1926—Palmul and Playa Carmen, Yucatan.

**Range.**—Arid coastal plains of eastern Mexico, in Nuevo Leon (San Ignacio), Tamaulipas (Victoria, Galindo, Realito, Alta Mira, Tampico, Forlon, Aldama), eastern San Luis Potosi (Jilitla, Tan-canhuizt, Valles), Vera Cruz (Pueblo Viejo), northern Tabasco (Frontera), Campeche, and Yucatan (Chichen Itza, Mérida, Temax, Peto, Palmul, Playa Carmen, Tabi), including the islands of Meco, Mugerres, and Cozumel.

10: Tamaulipas (Tampico, 5; unspecified, 1); Vera Cruz (Pueblo Viejo, 2); Yucatan (Peto, 1; unspecified, 1).

**\**Turdus grayi casius* (Bonaparte). BONAPARTE'S THRUSH.**

*Planesticus casius* Bonaparte, Compt. Rend. Acad. Sci. Paris, 41, p. 657, 1855—Panama (type in British Museum).

*Turdus casius* Selater, Proc. Zool. Soc. Lond., 27, p. 330, 1859—Panama (crit.); Lawrence, Ann. Lyc. Nat. Hist. N. Y., 7, p. 326, 1862—Lion Hill, Panama; Seebohm, Cat. Bds. Brit. Mus., 5, p. 220, 1881—Panama; Sharpe, in Seebohm, Monog. Turd., 1, p. 261, pl. 60, fig. 2, 1898—Panama.

*Turdus grayi*(i) (not of Bonaparte) Cabanis, Journ. Orn., 8, p. 323, 1860—Costa Rica; Baird, Rev. Amer. Bds., 1, p. 26, 1864—part, San José, Costa Rica, and Panama; Selater and Salvin, Proc. Zool. Soc. Lond., 1864, p. 344—Lion Hill, Panama; Salvin, l.c., 1867, p. 132—David, Chiriquí, and Santa Fé, Veragua (crit.); idem, l.c., 1870, p. 180—Chitrá, Veragua, and Volcan de Chiriquí; Lawrence, Ann. Lyc. Nat. Hist. N. Y., 8, p. 175,

<sup>1</sup> *Turdus grayi tamaulipensis* (Nelson) is the palest of all the races, the very light under parts being its most noticeable feature.

**Material examined.**—Tamaulipas: Tampico, 6; Ciudad Victoria, 1.—Vera Cruz: Pueblo Viejo, 2.—Yucatan: Temax, 2; Peto, 3; unspecified, 3.

1865—David, Chiriquí; idem, l.c., 9, p. 91, 1868—San José, Barranca, and Quebrada Honda, Costa Rica; Frantzius, Journ. Orn., 17, p. 290, 1869—Quebrada Honda and Lepanto, Costa Rica; Boucard, Proc. Zool. Soc. Lond., 1878, p. 50—San José, Costa Rica (habits); Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 18, 1879—part, Costa Rican and Panama references and localities; Underwood, Ibis, 1896, p. 432—Miravalles, Costa Rica; Sharpe, in Seebohm, Monog. Turd., 1, p. 261, pl. 60, fig. 1, 1899—part, Costa Rica and Panama.

*Merula grayi* Ridgway, Proc. U. S. Nat. Mus., 5, p. 386, 1882—La Palma de Nicoya, Costa Rica; idem, l.c., p. 494—Volcan de Irazú, Costa Rica; idem, l.c., p. 499—San José, Costa Rica; Zeledón, Anal. Mus. Nac. Costa Rica, 1, p. 104, 1887—Cartago, San José, Alajuela, Las Trojas, Santa María de Dota, Zarcero de Alajuela, and Monte Redondo, Costa Rica; Cherrie, Auk, 8, p. 274, 1891—San José, Costa Rica (habits, nest, and eggs); idem, Anal. Inst. Fis.-Geog. Mus. Nac. Costa Rica, 4, p. 133, 1893—Boruca and Buenos Aires, Costa Rica.

*Merula grayii casius* Bangs, Proc. N. Engl. Zool. Cl., 2, p. 27, 1900—Loma del Leon, Panama; idem, l.c., 3, p. 49, 1902—Boquete, Chiriquí; idem, Auk, 18, p. 368, 1901—Divala and David, Panama.

*Planesticus grayi casius* Ridgway, Bull. U. S. Nat. Mus., 50, Part 4, p. 120, 1907—part, Costa Rica and Panama (monog.); Bangs, Auk, 24, p. 304, 1907—Boruca, Costa Rica; Carriker, Ann. Carnegie Mus., 6, p. 739, 1910—Guayábo, San José, Santa María de Dota, Carrillo, Buenos Aires, Juan Viñas, Volcan de Irazú, Guápiles, and Miravalles, Costa Rica (habits); Ferry, Field Mus. Nat. Hist., Orn. Ser., 1, p. 272, 1910—Guayábo, Costa Rica; Crandall, Zoologica (N.Y.), 1, p. 336, 1914—Guápiles, Costa Rica (habits, nest, eggs); Stone, Proc. Acad. Nat. Sci. Phila., 1918, p. 272—Miraflores, Panama (nest and eggs); Rendahl, Ark. Zool., 12, No. 8, p. 36, 1919—part, Pacora, Panama; Hallinan, Auk, 41, p. 325, 1924—Las Cascadas, Gatun, Rio Algarroba, and Sosa Hill, Panama.

*Turdus grayi grayi* Hellmayr, Journ. Orn., 50, pp. 47, 51, 1902—part, Costa Rica and Panama (crit.).

*Turdus grayi casius* Kennard and Peters, Proc. Bost. Soc. N. H., 38, p. 459, 1920—Almirante and Chiriquicito, Panama; Peters, Bull. Mus. Comp. Zool., 71, p. 332, 1931—Almirante Bay, Panama.

*Range.*—Costa Rica and Panama.

16: Costa Rica (Limón, 2; Guayábo, 4; Peralta, 1; Santa Cruz de Turrialba, 1; Matina, 1; La Hondura, 1; Nicoya, 2); Panama (Boquete, Chiriquí, 1; Colón, 3).

#### \**Turdus grayi incomptus* (Bangs).<sup>1</sup> BANGS'S THRUSH.

*Planesticus luridus* (not *Turdus luridus* Hermann, 1804) Bonaparte, Compt. Rend. Acad. Sci. Paris, 38, p. 4, 1854—"Nouvelle Grenade" (type in British Museum examined); idem, Not. Orn. Coll. Delattre, p. 28, 1854—

<sup>1</sup> *Turdus grayi incomptus* (Bangs): Nearest to *T. g. casius*, but slightly smaller (wing, 105–112, rarely 115) and underneath much paler, light buffy brownish tinged with olive; under wing coverts paler ochraceous.

*Material examined.*—Colombia: Santa Marta, 5; Aracataca, 1; Tucurina, 1.



"Nouvelle Grenade"; Sclater, Proc. Zool. Soc. Lond., 27, p. 330 (in text), 1859—New Granada (crit.).

*Merula incompta* Bangs, Proc. Biol. Soc. Wash., 12, p. 144, 1898—Santa Marta (type in coll. of Bangs, now in Museum of Comparative Zoology, Cambridge, Mass.); Allen, Bull. Amer. Mus. N. H., 13, p. 181, 1900—Santa Marta (ex Bangs).

*Turdus luridus* Salvin, Proc. Zool. Soc. Lond., 1867, p. 132 (in text)—Santa Marta (crit.); Sclater and Salvin, Nomencl. Av. Neotrop., p. 2, 1873—Colombia; Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 19, 1879—Santa Marta (crit.).

*Turdus grayi*(i) (not of Bonaparte) Salvin and Godman, Ibis, 1880, p. 115—Santa Marta (crit.); Seebohm, Cat. Bds. Brit. Mus., 5, p. 219, 1881—part, Colombia; Sharpe, in Seebohm, Monog. Turd., 1, p. 261, 1898—part, Colombia.

*Merula grayi lurida* Allen, Bull. Amer. Mus. N. H., 13, p. 181, 1900—Bonda, Santa Marta region; idem, l.c., 21, p. 294, 1905—Bonda (nest and eggs descr.); Oberholser, Proc. Biol. Soc. Wash., 34, p. 106, 1921 (nomencl.).

*Turdus grayi luridus* Hellmayr, Journ. Orn., 50, pp. 50, 53, 1902—Santa Marta region (crit.).

*Turdus grayi incomptus* Todd and Carriker, Ann. Carnegie Mus., 14, p. 397, 1922—Bonda, Cacagualito, Mamatoco, Tucurínca, Fundación, Santa Marta, and Fonseca (crit., habits); Bangs, Bull. Mus. Comp. Zool., 70, p. 328, 1930—Santa Marta (note on type); Darlington, l.c., 71, p. 406, 1931—Santa Marta region.

**Range.**—Tropical zone of Santa Marta region, northern Colombia.

1: Colombia (Tucurínca, 1).

**\**Turdus nudigenis nudigenis* Lafresnaye.<sup>1</sup> BARE-EYED THRUSH.**

*Turdus nudigenis* Lafresnaye, Rev. Zool., 11, p. 4, Jan., 1848—Caracas (type in coll. of Lafresnaye, now in Museum of Comparative Zoology, Cambridge, Mass.); Léotaud, Ois. Trinidad, p. 210, 1866—Trinidad; Bangs and Penard, Bull. Mus. Comp. Zool., 63, p. 31, 1919 (nomencl.); Bangs, l.c., 70, p. 329, 1930—Caracas (note on type); Chapman, Bull. Amer. Mus. N. H., 55, p. 580, 1926—"eastern Ecuador" (errore).

*Turdus gymnophthalmus* Cabanis, in Schomburgk, Reisen Brit. Guiana, 3, "1848," p. 665, 1849—Guaira [=La Guaira] and Caracas, Venezuela, and Cayenne<sup>2</sup> (types in Berlin Museum); Sclater, Proc. Zool. Soc. Lond., 27, p. 329, 1859—Guiana, Venezuela, Trinidad, Tobago, Surinam (monog.); idem, Cat. Coll. Amer. Bds., p. 4, 1862—Venezuela; Taylor, Ibis, 1864, p. 80—Trinidad; Sclater and Salvin, Exot. Orn., p. 151, pl. 76, 1869—Caracas, Trinidad, Tobago, British Guiana, Surinam, Bogotá (monog.); Seebohm, Cat. Bds. Brit. Mus., 5, p. 212, 1881—"north-west" [=north-east] of South America (monog.); Salvin, Ibis, 1885, p. 198—Roraima, British Guiana; Wells, Proc. U. S. Nat. Mus., 9, p. 610, 1887—Grenada

<sup>1</sup> Probably conspecific with *T. grayi*.

<sup>2</sup> Cayenne designated as type locality by Berlepsch (Nov. Zool., 15, p. 104, 1908).

- (eggs descr.); Goeldi, *Ibis*, 1897, p. 161—Amapá, Pará, Brazil; Sharpe, in Seebohm, *Monog. Turd.*, 1, p. 231, pl. 53, fig. 2, 1898—Guiana, Venezuela, Trinidad, Tobago, Colombia, St. Vincent, and Grenada (monog.); Salvadori, *Boll. Mus. Zool. Torino*, 14, No. 339, p. 2, 1899—Puerto Cabello, Venezuela; Dalmas, *Mém. Soc. Zool. France*, 13, p. 132, 1900—Tobago (crit.); Berlepsch and Hartert, *Nov. Zool.*, 9, p. 2, 1902—Quiribana de Caicara, Altagracia, and Maipures, Rio Orinoco, Venezuela; Hellmayr, *l.c.*, 13, p. 5, 1906—Caparo, Seelet, and Caroni, Trinidad; Berlepsch, *l.c.*, 15, p. 104, 1908—Approuague and Cayenne, French Guiana; Penard and Penard, *Vog. Guyana*, 2, p. 542, 1910—Guiana (habits, eggs descr.); Snethlage, *Bol. Mus. Goeldi*, 8, p. 161, 1914—Amapá, Rio Jamundá (Faro), and (?) Cussary,<sup>1</sup> Amazonia; Bond, *Proc. Acad. Nat. Sci. Phila.*, 80, p. 536, 1928—Kingstown, St. Vincent.
- Turdus gymnopsis* (Temminck MS.) Bonaparte, *Consp. Gen. Av.*, 1, p. 272, 1850—Brazil (type in Leiden Museum).
- Turdus cariboeus*<sup>2</sup> Lawrence, *Ann. N. Y. Acad. Sci.*, 1, p. 160, July, 1878—Grenada (type in U. S. National Museum); idem, *Proc. U. S. Nat. Mus.*, 1, pp. 267, 486, 1879—Grenada.
- Turdus gymnogenys* (lapsus) Sclater and Salvin, *Ibis*, 1879, p. 357 (in text)—Venezuela and Trinidad.
- Planesticus gymnophthalmus* Bonaparte, *Bull. Soc. Linn. Normandie*, 2, p. 31, 1857—Cayenne; Ridgway, *Bull. U. S. Nat. Mus.*, 50, Part 4, p. 113, 1907—northeastern South America and Lesser Antilles (monog.); Cherrie, *Mus. Brookl. Inst., Sci. Bull.*, 1, p. 355, 1908—Aripo and Carenage, Trinidad; idem, *l.c.*, 2, p. 135, 1916—Orinoco region, Venezuela (crit., habits); Beebe, *Zoologica (N.Y.)*, 1, p. 100, 1909—Guanoco, Orinoco Delta, Venezuela; Cory, *Field Mus. Nat. Hist., Orn. Ser.*, 1, pp. 251, 255, 1909—Margarita Island, Venezuela; Chapman, *Bull. Amer. Mus. N. H.*, 36, p. 534, 1917—Villavicencio, Colombia; Chubb, *Bds. Brit. Guiana*, 2, p. 383, 1921—Roraima and Quonga, British Guiana.
- Turdus leucomelas* (not of Vieillot) Pelzeln, *Orn. Bras.*, 2, p. 93, 1868—part, Forte do Rio Branco (spec. in Vienna Museum examined).
- Merula gymnophthalma* Cory, *List Bds. W. Ind.*, p. 4, 1885—Grenada; idem, *Auk*, 3, p. 4, 1886—Grenada, Trinidad, and Tobago (crit.); idem, *Bds. West Ind.*, p. 18, 1889—same localities (monog.); idem, *Cat. Bds. West Ind.*, pp. 122, 167, 1892—Grenada and St. Vincent; idem, *Auk*, 10, p. 220, 1893—Tobago; Chapman, *Bull. Amer. Mus. N. H.*, 6, p. 22, 1894—Princetown, Trinidad; Phelps, *Auk*, 14, p. 363, 1897—Cumanacoo and San Antonio, Sucre, Venezuela; Wells, *l.c.*, 19, p. 349, 1902—Carriacou; Clark, *Proc. Bost. Soc. N. H.*, 32, pp. 296, 303, 304, 305, 306, 1905—St. Vincent, Bequia, Canouan, Union, Petit Martinique, Carriacou, Isle Ronde, Barbados, and Grenada, Lesser Antilles; Williams, *Bull. Dept. Agric. Trin. Tob.*, 20, p. 125, 1922—Trinidad (nest and eggs descr.).
- Merula caribbaea* Cory, *Ibis*, 1886, p. 472—St. Vincent (crit.).

<sup>1</sup> Locality perhaps inaccurate. The bird so labeled probably came from a place on the north bank of the Amazon opposite Cussary, or else belongs to *T. n. exlimus*.

<sup>2</sup> Various spelt *cariboeus*, *carribaesus*, and *caribbaeus*.

*Turdus gymnophthalmus caribbeus* Dalmas, Mém. Soc. Zool. France, 13, p. 132, 1900 (in text)—Grenada (crit.).

*Turdus gymnophthalmus gymnophthalmus* Hellmayr and Seilern, Arch. Naturg., 78, A, Heft 5, p. 37, 1912—San Esteban and Las Quiguas, Carabobo, Venezuela; Bangs and Penard, Bull. Mus. Comp. Zool., 62, p. 80, 1918—Surinam.

**Range.**—French, Dutch, and British Guiana; Venezuela, from the north coast south to the Orinoco basin, west to the eastern base of the eastern Andes of Colombia (Villavicencio);<sup>1</sup> northeastern Brazil, north of the Amazon and east of the Rio Negro; Trinidad; Tobago; southern Lesser Antilles (Grenada, Grenadines, St. Vincent, introduced in Barbados).

22: Venezuela (Margarita Island, 1; Caracas, 2; Maracay, Aragua, 1); Island of Tobago, 9; Lesser Antilles (Grenada, 6; St. Vincent, 3).<sup>2</sup>

***Turdus nudigenis extimus* Todd.<sup>3</sup> SOUTHERN BARE-EYED THRUSH.**

*Turdus nudigenis extimus* Todd, Proc. Biol. Soc. Wash., 44, p. 54, 1931—Santarém, Amazon River, Brazil (type in Carnegie Museum).

**Range.**—Northern Brazil, on the south bank of the lower Amazon (Santarém).

<sup>1</sup> No authentic record exists for Ecuador, which was included in the range by Brabourne and Chubb (Bds. S. Amer., 1, p. 345, 1912).

<sup>2</sup> None of the characters claimed by Dalmas for the Lesser Antillean birds (*caribbeus*) seems to hold. They are perhaps on average more olivaceous above and slightly more brownish on the chest, but the variation is by no means constant. The dusky basal portion of the bill is too variable a feature to be used for taxonomic purpose. I am also reluctant to subdivide the continental form of the Bare-eyed Thrush, as was recently proposed by Mr. Todd (Proc. Biol. Soc. Wash., 44, pp. 53–54, 1931). While admitting that birds from the Venezuelan coast, Trinidad, and Tobago in fresh plumage are generally more grayish olive above and paler below, the divergency is not only completely bridged by individual variation, but also entirely obliterated through wear so that only a small percentage of specimens from any locality could definitely be assigned to either of the two alleged races (*nudigenis* and *gymnophthalmus*).

**Material examined.**—French Guiana: Cayenne, 1.—Dutch Guiana: “Surinam,” 1.—British Guiana: Quonga, 2.—Brazil: Forte do São Joaquim, Rio Branco, 2.—Venezuela: San Antonio, Sucre, 1; Margarita Island, 1; San Esteban, 2; Las Quiguas, upper San Esteban Valley, 4; Caracas, 2; Maracay, Aragua, 1; Caicara, Orinoco River, 3; Caura Valley, 1.—Colombia: “Bogotá,” 5.—Trinidad: Caparo, 14.—Tobago: Man o’ War Bay, 5; Lecito, 1; unspecified, 11.—Lesser Antilles: Grenada, 8; St. Vincent, 3.

<sup>3</sup> *Turdus nudigenis extimus* Todd: This recently discovered form, which is autoptically unknown to us, is described as being similar to Guianan and Orinocan specimens of *T. n. nudigenis*, but decidedly darker and more brownish. The upper parts are dark buffy olive, the under surface is darker (Saccardo’s umber to tawny olive), and the white abdominal area reduced in extent. In the coloration of the under parts it is said to be almost the same as *T. fumigatus obsoletus*; but above it is not nearly so brown as that form.

**\**Turdus nudigenis maculirostris* Berlepsch and Taczanowski.<sup>1</sup>**  
**ECUADORIAN BARE-EYED THRUSH.**

*Turdus ignobilis maculirostris* Berlepsch and Taczanowski, Proc. Zool. Soc. Lond., 1883, p. 538—Chimbo, Ecuador (type in Berlepsch Collection, now in Frankfort Museum, examined); idem, l.c., 1884, p. 283—El Placer, Ecuador.

*Turdus maculirostris* Berlepsch, Proc. Zool. Soc. Lond., 1885, p. 115—Ecuador (crit.); Hartert, Nov. Zool., 5, p. 478, 1898—Chimbo; Sharpe, in Seebohm, Monog. Turd., 1, pp. 239, 240, 1898—part, spec. b, c, f, g, i, Balzar, Pallatanga, and Santa Rita, Ecuador (spec. in British Museum examined); Salvadori and Festa, Boll. Mus. Zool. Torino, 14, No. 357, p. 3, 1899—Guayaquil and Vinces (spec. examined); Hellmayr, Journ. Orn., 50, pp. 53, 57, 1902—Babahoyo, Pallatanga, Guayaquil, Vinces, Chimbo, El Placer, Balzar, Ecuador (crit.); idem, Nov. Zool., 13, p. 5, 1906—Balzar, Pallatanga, and Santa Rita (crit.); Chapman, Bull. Amer. Mus. N. H., 55, p. 580, 1926—Bucay, Esmeraldas, Chone, Manaví, Daule, Chongon Hills, Naranjo, Chimbo, Coco, El Chiral, La Chonta, Santa Rosa, Portovelo, Zaruma, Rio Pindo, Salvias, Las Piñas, Alamor, Guainche, Ecuador, and Milagros, Peru.

*Turdus albiventris* (not *T. albiventer* Spix) Sclater, Proc. Zool. Soc. Lond., 27, p. 136, 1859—Pallatanga (spec. in British Museum examined); idem, l.c., p. 328, 1859—part, Pallatanga; idem, l.c., 28, p. 272, 1860—Babahoyo (spec. examined); idem, Cat. Coll. Amer. Bds., p. 3, 1862—part, spec. d, e, Babahoyo, Pallatanga.

*Planesticus albiventris* Heine and Reichenow, Nomencl. Mus. Hein., p. 4, 1890—part, var. from Babahoyo (spec. examined).

**Range.**—Tropical and Lower Subtropical zones of western Ecuador and extreme northwestern Peru (Milagros, Dept. Tumbes).  
 2: Ecuador (Puente de Chimbo, 2).

***Turdus haplochrous* Todd.<sup>2</sup> BOLIVIAN BARE-EYED THRUSH.**

*Turdus haplochrous* Todd, Proc. Biol. Soc. Wash., 44, p. 54, 1931—Palmarito, Rio San Julián, Chiquitos, Bolivia (type in Carnegie Museum examined).

**Range.**—Eastern Bolivia (Rio San Julián, Chiquitos).

<sup>1</sup>*Turdus nudigenis maculirostris* Berlepsch and Taczanowski, according to coloration, proportions, and color of bill (basal half dark olive green or dusky olive contrasting with yellow apical portion), is an exact duplicate of *T. n. nudigenis* and differs merely by the lesser extent of the bare skin round the eye.

As we have shown elsewhere, Sharpe strangely confused it with the dusky-billed *T. ignobilis debilis* and *T. amaurochalinus*. It has no relation whatever to either of these.

**Material examined.**—Ecuador: Chimbo (including the type), 6; El Placer, 1; Babahoyo, 1; Pallatanga, 2; Balzar, 2; Guayaquil, 1; Vinces, 1; Santa Rita, 1.

<sup>2</sup>*Turdus haplochrous* Todd: Upper parts, including sides of head, dark buffy olive or warm light brownish olive; tertials and outer webs of secondaries darker brownish olive; throat whitish, posteriorly more buffy, streaked with dusky brown; remainder of under surface uniform brownish isabella color, darkening into light brownish olive on flanks and tail coverts; axillaries and under wing coverts brownish

**\**Turdus fumigatus nigrirostris* Lawrence.<sup>1</sup> BLACK-BILLED THRUSH.**

*Turdus nigrirostris* Lawrence, Ann. N. Y. Acad. Sci., 1, p. 147, June, 1878—St. Vincent (type in U. S. National Museum); idem, Proc. U. S. Nat. Mus., 1, p. 187, 1878—St. Vincent; idem, l.c., 1, p. 486, 1879—part, St. Vincent; Lister, Ibis, 1880, p. 39—St. Vincent; Seebohm, Cat. Bds. Brit. Mus., 5, p. 218, 1881—St. Vincent (monog.); Sharpe, in Seebohm, Monog. Turd., 1, p. 253, 1898—part, St. Vincent; Bond, Proc. Acad. Nat. Sci. Phila., 80, p. 537, 1928—St. Vincent.

*Merula nigrirostris* Cory, Auk, 3, p. 4, 1886—St. Vincent (monog.); idem, Ibis, 1886, p. 472—St. Vincent; idem, Bds. West Ind., p. 18, 1889—St. Vincent (monog.); Clark, Proc. Bost. Soc. N. H., 32, p. 297, 1905—part, St. Vincent (habits).

*Planesticus nigrirostris* Ridgway, Bull. U. S. Nat. Mus., 50, Part 4, p. 115, 1907—part, St. Vincent (monog.).

**Range.**—Island of St. Vincent, Lesser Antilles.

**5:** St. Vincent.

***Turdus fumigatus personus* (Barbour).<sup>2</sup> GRENADA BLACK-BILLED THRUSH.**

*Planesticus nigrirostris personus* Barbour, Proc. Biol. Soc. Wash., 24, p. 58, 1911—Grand Etang, Grenada (type in Museum of Comparative Zoology, Cambridge, Mass.); Bangs, Bull. Mus. Comp. Zool., 70, p. 329, 1930—Grenada.

*Turdus nigrirostris* (not of Lawrence, June, 1878) Lawrence, Proc. U. S. Nat. Mus., 1, p. 267, 1878—Grenada; idem, l.c., 1, p. 486, 1879—part, Grenada; Wells, l.c., 9, "1886," p. 609, 1887—Grenada (habits, nest, and eggs);

isabella color, the latter apically edged with ochraceous; bill greenish yellow, brownish dusky at base; feet dark brown. Wing (adult female), 115; tail, 100; bill, 20.

Although known from a single specimen (in fresh plumage), this thrush appears to be quite distinct. It is most nearly related to *T. n. maculirostris* which it resembles in the limited extent of the bare skin around the eye, but differs by decidedly brownish (instead of plain olive) upper parts and uniform brownish isabella color under surface without any white on tail coverts or middle of abdomen. Another feature is the absence of the buffy white inner margin to the remiges. Proportions are about the same as in *T. nudigenis*, but the second primary (from without) is somewhat longer, equal to the sixth, instead of being equal to the seventh or between the sixth and seventh in length.

<sup>1</sup> *Turdus fumigatus nigrirostris* Lawrence: Exceedingly similar to *T. f. aquilonalis* in coloration, but less rufescent throughout, the dorsal surface being duller brown (between bister and raw umber), while the chest and sides are decidedly less ochraceous, more of an isabella brown. The insular form may, however, easily be told by its larger bill, as well as much longer tarsi and toes.

Six specimens examined.

<sup>2</sup> *Turdus fumigatus personus* (Barbour) is stated to differ from *T. f. nigrirostris* by darker olivaceous (less reddish) upper parts, more grayish breast and sides, and rather paler ochraceous-buff under wing coverts.

We are not acquainted with this form.

- Sharpe, in Seebohm, Monog. Turd., 1, p. 253, 1898—part, Grenada (descr. and hab.); Nicoll, Ibis, 1904, p. 564—Grand Etang, Grenada.
- Merula nigrirostris* Clark, Proc. Bost. Soc. N. H., 32, p. 297, 1905—part, Grenada (habits).
- Planesticus nigrirostris* Ridgway, Bull. U. S. Nat. Mus., 50, Part 4, p. 115, 1907—part, Grenada (monog., crit.).
- Range*.—Island of Grenada, Lesser Antilles.

**\**Turdus fumigatus*<sup>1</sup> *aquilonalis* (Cherrie).<sup>2</sup> TRINIDAD THRUSH.**

- Planesticus fumigatus aquilonalis* Cherrie, Sci. Bull., Mus. Brookl. Inst., 1, p. 387, 1909—heights of Aripo, Trinidad (type in Brooklyn Museum, now in the American Museum of Natural History, New York).
- Planesticus fumigatus ochro-fulvescens* Chubb, Bull. Brit. Orn. Cl., 38, p. 54, 1918—Trinidad (type in British Museum).
- Turdus fumigatus caparo* Hartert, Nov. Zool., 27, p. 475, 1920—Caparo, Trinidad (type in Tring Museum).
- Turdus fumigatus* (not of Lichtenstein) Taylor, Ibis, 1864, p. 80—Trinidad; Sclater and Salvin, Proc. Zool. Soc. Lond., 1868, p. 166—El Pilar, near Caripé, Sucre, Venezuela; idem, l.c., p. 626—San Esteban, Carabobo, Venezuela; Seebohm, Cat. Bds. Brit. Mus., 5, p. 216, 1881—part, Trinidad and Venezuela; Sharpe, in Seebohm, Monog. Turd., 1, p. 255, 1898—part, Venezuela and Trinidad; Hellmayr, Journ. Orn., 50, p. 65, 1902—part, Trinidad; idem, Nov. Zool., 13, p. 4, 1906—Caparo and Valencia, Trinidad; Ihering and Ihering, Cat. Faun. Braz., 1, p. 319, 1907—part, Trinidad; Hellmayr and Seilern, Arch. Naturg., 78, A, Heft 5, p. 38, 1912—Cumbre de Valencia, Venezuela; Ingram, Bull. Brit. Orn. Cl., 36, p. 77, 1916—Trinidad (eggs descr.).
- Merula fumigata* Allen, Bull. Amer. Mus. N. H., 4, p. 51, 1892—El Pilar, Sucre, Venezuela; Chapman, l.c., 6, p. 4, 1894—Princetown, Trinidad; Richmond and Robinson, Proc. U. S. Nat. Mus., 24, p. 178, 1901—San Julián, near La Guaira, Venezuela; Cherrie, Sci. Bull., Mus. Brookl. Inst., 1, p. 187, 1906—St. Mathews, Aripo, Trinidad; Williams, Bull. Dept. Agric. Trin. Tob., 20, p. 125, 1922—Maracas, Trinidad (nest descr.).
- Planesticus fumigatus* Cherrie, Sci. Bull., Mus. Brookl. Inst., 1, p. 355, 1908—Trinidad.

<sup>1</sup> I see no reason for generic separation of *T. fumigatus* and allies. The cohesion of the anterior toes certainly is not greater than in some other species, such as *T. leucomelas*, which doubtless is closely related to *T. amaurochalinus*.

<sup>2</sup> *Turdus fumigatus aquilonalis* (Cherrie): Similar to *T. f. fumigatus*, but paler throughout. The upper parts are light ochreous brown with a more or less distinct olivaceous hue, particularly on the pileum; the lower ones are clay color or pale ochreous, rarely shaded with darker rufescent on the sides and flanks.

While generally recognizable by its paler coloration, the Trinidad form is sometimes approached (and even matched) by exceptionally light-colored examples of typical *fumigatus*. Such individuals have been examined from Mexiana and Obidos, lower Amazonia.

*Material examined*.—Trinidad: Caparo, 20; Aripo, 1; Valencia, 1; Savannah Grande, 1.—Venezuela: Macuto, Maracay, 1; Cumbre de Valencia, Carabobo, 1; Duaca, near Tocuyo, Lara, 1.

*Turdus casius* (not *Planesticus casius* Bonaparte) Léotaud, Ois. Trinidad, p. 204, 1866—Trinidad.

*Range*.—Island of Trinidad and north coast of Venezuela, from Sucre west to Zulia (Guachi).<sup>1</sup>

1: Venezuela (Macuto, Caracas, 1).

**\**Turdus fumigatus fumigatus* (Lichtenstein).<sup>2</sup> SABIAN THRUSH.**

*Turdus fumigatus* Lichtenstein, Verz. Doubl. Berliner Mus., p. 38, 1823—Brazil (the type in the Berlin Museum was collected by F. Sellow in southeastern Brazil; we suggest Rio Espirito Santo, Espirito Santo, as type locality); Cabanis, in Schomburgk, Reisen Brit. Guiana, 3, p. 665, "1848" [=1849]—British Guiana; Sclater, Proc. Zool. Soc. Lond., 27, p. 329, 1859—eastern Brazil north to Guiana, Pará (monog.); idem, Cat. Coll. Amer. Bds., p. 4, 1862—Pará; Sclater and Salvin, Proc. Zool. Soc. Lond., 1867, p. 568—Mexiana Island, Pará; Pelzeln, Orn. Bras., 2, p. 94, 1868—Engenho do Cap Gama and São Vicente (Matto Grosso), Borba (Rio Madeira), and Obidos (spec. examined); Layard, Ibis, 1873, p. 376—Pará; Forbes, Ibis, 1881, p. 327—Cabo, Recife, Pernambuco; Seebohm, Cat. Bds. Brit. Mus., 5, p. 216, 1881—part, Guiana and eastern Brazil, south to Bahia; Salvin, Ibis, 1885, p. 198—Bartica Grove and Camacusa, British Guiana; Ihering, Journ. Orn., 46, p. 8, 1898—occurrence in São Paulo denied; Sharpe, in Seebohm, Monog. Turd., 1, p. 255, pl. 58, fig. 1, 1898—part, Brazil and British Guiana (monog.); Hellmayr, Journ. Orn., 50, p. 65, 1902—part, Brazil and British Guiana (crit.); Berlepsch and Hartert, Nov. Zool., 9, p. 3, 1902—Nericagua, Munduapo, and Maipures, Rio Orinoco, Venezuela; Ménégau, Bull. Mus. Hist. Nat. Paris, 10, p. 115, 1904—Saint Georges d'Oyapock, French Guiana; Hellmayr, Nov. Zool., 13, p. 353, 1906—Santo Antonio do Prata, Pará; idem, l.c., 14, p. 2, 1907—Itaituba, Rio Tapajóz; Hagmann, Zool. Jahrb. (Syst.), 26, p. 24, 1907—Mexiana Island; Ihering and Ihering, Cat. Faun. Braz., 1, p. 319, 1907—part, Venezuela, Pará, Matto Grosso, Borba, Bahia, "Minas Geraes"; Berlepsch, Nov. Zool., 15, pp. 105, 316, 1908—Cayenne, Roche-Marie, Ipousin, and Saint Georges, French Guiana; Penard and Penard, Vog. Guyana, 2, p. 546, 1910—Dutch Guiana; Hellmayr, Abhandl. Bayr. Akad. Wiss., Math.-Phys. Kl., 26, No. 2, pp. 4, 86, 98, 118, 1912—Ipitinga (Rio Acará) and Fazenda Nazareth (Mexiana) (crit.); Snethlage, Bol. Mus. Goeldi, 8, p. 497, 1914—Pará, Apehú, Rio Guamá (Ourém), Rio Tocantins (Cameté, Baião), and Mexiana; Lima, Rev. Mus. Paul., 12,

<sup>1</sup> The few examples which we have seen from northern Venezuela appear to be intermediate between *aquilonalis* and *fumigatus*, though nearer the former.

Mr. Todd writes that a considerable series in the Carnegie Museum from localities in the coast region (Las Quiguas; San Esteban; Sierra de Carabobo; Puerto La Cruz; El Limon; Santa Lucia; Guachi, Zulia) cannot be satisfactorily separated from Trinidad birds, and Mr. Zimmer (in litt.) also unhesitatingly refers a single bird from El Pilar, near Caripé, Sucre, to *aquilonalis*.

<sup>2</sup> I cannot help thinking that *Planesticus bianchii* Chrostowski (Ann. Zool. Mus. Pol. Hist. Nat., 1, p. 28, 1921), described as being similar to *T. fumigatus*, but with uniform white throat and a narrow white nuchal crescent, was based on a partial albino of the present species. The type, which is in the Leningrad Museum, was obtained by E. Ménétries in "Brazil."

- (2), p. 100, 1920—Ilhéos to Belmonte, Bahia; Snethlage, Bol. Mus. Nac. Rio de Janeiro, 2, No. 6, p. 59, 1926—Tury-assú, Maranhão; Stone, Proc. Acad. Nat. Sci. Phila., 80, p. 172, 1928—Pará and Rio Guamá, Brazil.
- Turdus ferrugineus* Wied, Beitr. Naturg. Bras., 3, (2), p. 649, 1831—Rio Espírito Santo, southern Brazil (types now in the American Museum of Natural History, New York; cf. Allen, Bull. Amer. Mus. N. H., 2, p. 212, 1889); Hartlaub, Journ. Orn., 2, p. 259, 1854 (crit.); Burmeister, Syst. Uebers. Th. Bras., 3, p. 122, 1856—from the Rio Parahyba north to the Amazon.
- Merula fumigata* Chapman and Riker, Auk, 7, p. 135, 1890—Santarém.
- Turdus fumigatus fumigatus* Hellmayr, Nov. Zool., 17, p. 260, 1910—Borba, Engenho do Gama, and São Vicente, Brazil (crit.); Bangs and Penard, Bull. Mus. Comp. Zool., 62, p. 80, 1918—Paramaribo, Surinam.
- Planesticus fumigatus* Cherrie, Sci. Bull., Mus. Brookl. Inst., 2, p. 139, 1916—Maipures and Nericagua, Orinoco region (crit.); Beebe, Trop. Wild Life, 1, p. 135, 1917—Bartica Grove.
- Planesticus fumigatus fumigatus* Cherrie, Sci. Bull., Mus. Brookl. Inst., 1, pp. 388, 389, 1909—Santarém, Diamantina, Maranhão, Cayenne, British Guiana, and Nericagua, Venezuela (crit.); Hellmayr, Field Mus. Nat. Hist., Zool. Ser., 12, p. 248, 1929—Tury-assú, Maranhão; Naumburg, Bull. Amer. Mus. N. H., 60, p. 331, 1930—Matto Grosso (crit.).
- Planesticus fredericki* Chubb, Bull. Brit. Orn. Cl., 38, p. 53, 1918—Bartica Grove, British Guiana (type, now in British Museum, examined); idem, Bds. Brit. Guiana, 2, p. 381, pl. 5, fig. 1, 1921—upper Tatuku Mountains, Ituribisci, Supenaam, Bartica Grove, and Camacusa, British Guiana.
- Planesticus fumigatus abariensis* Chubb, Bull. Brit. Orn. Cl., 38, p. 53, 1918—Abary River, British Guiana (type, now in British Museum, examined); idem, Bds. Brit. Guiana, 2, p. 382, 1921—Abary River.

*Range*.—Southern Venezuela (the Orinoco Valley and its tributaries); British, Dutch, and French Guiana; northern and eastern Brazil, in the Amazon Valley west to the lower Rio Madeira (Borba) and along the east coast as far south as the Rio Parahyba, State of Rio de Janeiro, extending west to Matto Grosso (Engenho do Gama and São Vicente, Rio Guaporé) and eastern Bolivia (Chiquitos).<sup>1</sup>

<sup>1</sup> Individual variation is unusually great in this form, extremely dark and very pale specimens, together with every possible intermediate, being found alike in lower Amazonia and Guiana. This is particularly well illustrated by a series from the Pará region and another from British Guiana in the collections at Munich and London, respectively. The two sets of birds vary within the same limits, no two in each series being exactly alike. The type of *P. fredericki* is matched, in intensity of coloration, by the darkest specimen from Pará, while the palest examples correspond to the type of *P. f. abariensis*, these extremes being connected by various intergrades. Every one of the three Bahia skins can also be duplicated by individuals from more northern localities. Birds from the Orinoco-Caura basin agree in every respect with those from Amazonia. Birds from western Matto Grosso (Engenho do Gama and São Vicente) and Bolivia (Chiquitos) form the transition to *T. f. huxwelli* by the white middle of the abdo-



5: Brazil (Tury-assú, Maranhão, 2); British Guiana (Mazaruni River, 2; Kartabo, 1).

***Turdus fumigatus hauxwelli* Lawrence.<sup>1</sup> HAUXWELL'S THRUSH.**

*Turdus hauxwelli* Lawrence, Ann. Lyc. Nat. Hist. N. Y., 9, p. 265, Aug., 1869—Pebas, Peru (type in Vassar College, now in the American Museum of Natural History, New York, examined); Seebohm, Cat. Bds. Brit. Mus., 5, p. 217, 1881—Iquitos, Peru; Taczanowski, Orn. Pér., 1, p. 493, 1884—Nauta, Chamicuros, Santa Cruz, and Pebas, Peru; Sharpe, in Seebohm, Monog. Turd., 1, p. 251, pl. 58, fig. 2, 1898—Nauta, Iquitos, Samiria, Pebas, Chamicuros, and Santa Cruz, Peru (monog.); Ihering and Ihering, Cat. Faun. Braz., 1, p. 317, 1907—Iquitos (Peru), Rio Purús, and Rio Juruá (Brazil); Hellmayr, Nov. Zool., 14, p. 40, 1907—Teffé, Rio Solimões; idem, l.c., 17, p. 259, 1910—Santa Isabel, Rio Preto, and Calama, Rio Madeira (crit., synon.); Snethlage, Journ. Orn., 56, p. 7, 1908—Cachoeira and Ponto Alegre, Rio Purús; idem, Bol. Mus. Goeldi, 8, p. 497, 1914—same localities.

*Merula hauxwelli* Ihering, Rev. Mus. Paul., 6, p. 430, 1905—Rio Juruá.

*Merula fumigata hauxwelli* Allen, Bull. Amer. Mus. N. H., 2, p. 78, 1889—Reyes, Rio Beni, Bolivia (spec. examined).

*Turdus fumigatus* (not of Lichtenstein) Sclater and Salvin, Proc. Zool. Soc. Lond., 1866, p. 177—Nauta, Peru; idem, l.c., 1873, p. 255—Nauta, Chamicuros, Santa Cruz, and Pebas, Peru.

men and under tail coverts, as well as by the reduction of the ochraceous inner margins to the remiges.

*Material examined.*—Brazil: Bahia, 3; Tury-assú, Maranhão, 2; Pará region (Pará; Ipitinga, Rio Acará; Santo Antonio do Prata), 7; Fazenda Nazareth, Mexiana Island, 5; Itaituba, Rio Tapajós, 1; Obidos, 1; Borba, Rio Madeira, 2; Engenho do Cap Gama, Matto Grosso, 2; São Vicente, Matto Grosso, 1.—Bolivia: Palmarito, Rio San Julián, Chiquitos, 1.—French Guiana: Cayenne, 3; Roche-Marie, 1; Ipousin, Approuague River, 1.—British Guiana: Abary River, 1; Esse-quiibo River, 1; Bartica Grove, 4; Camacusa, 3; Mazaruni River, 2; Kartabo, 1; Supenaam, 2; Ituribisci, 2.—Venezuela: Caura River, 3; Rio Orinoco, Nericagua, 1; Munduapo, 1; Maipures, 1.

<sup>1</sup> *Turdus fumigatus hauxwelli* Lawrence: Differs from *T. f. fumigatus* by the much duller, darker coloration of the upper parts, which exhibit various shades between Dresden brown and Prout's brown; the absence or mere suggestion of the ochraceous margin along the inner web of the remiges; wood brown or tawny olive foreneck, breast, and sides; a distinct white abdominal area; nearly wholly white under tail coverts; duller ochraceous-buff under wing coverts, etc.

Like *T. f. fumigatus*, this form is exceedingly variable in coloration, but I have not been able to correlate the divergencies with separate geographic areas. The bill also varies in shape and color. Several specimens (from Orosa, Teffé, and the Rio Madeira) have the bill apically greenish yellow, while in others from the same localities it is wholly dusky brown as in *T. f. fumigatus*.

*Material examined.*—Peru: Pebas, 3 (including the type); Iquitos, 1; Chamicuros, 1; Santa Cruz, 1; Orosa, south bank of Rio Marañón, 5; Sarayacu, Rio Ucayali, 3; Lagarto Alto, Rio Ucayali, 2.—Brazil: Rio Purús, 9; Rio Juruá, 1; Teffé, Rio Solimões, 1; São Paulo de Olivença, Rio Solimões, 1; Humaytá, Rio Madeira, 1; Calama, Rio Madeira, 2; Santa Isabel, Rio Preto, Rio Madeira, 1.—Bolivia: Reyes, 1.

*Range*.—Upper Amazonia, from the banks of the Marañón and Solimões through the tropical lowlands of eastern Peru and western Brazil east to the Rio Madeira, south to northern Bolivia (Reyes, Rio Beni).

***Turdus fumigatus colombianus* Hartert and Hellmayr.<sup>1</sup> ROSENBERG'S THRUSH.**

*Turdus colombianus* Hartert and Hellmayr, Nov. Zool., 8, p. 492, 1901—Cali, Cauca, Colombia (type in Tring Museum); Hartert, l.c., 27, p. 475, 1920—Cali (note on type).

*Planesticus obsoletus colombianus* Chapman, Bull. Amer. Mus. N. H., 36, p. 536, 1917—San Antonio, Colombia.

*Range*.—Western Colombia (Cali, upper Cauca Valley; San Antonio, western Andes).

***Turdus fumigatus parambanus* Hartert.<sup>2</sup> PARAMBA THRUSH.**

*Turdus obsoletus parambanus* Hartert, Nov. Zool., 27, p. 475, 1920—Paramba, Prov. Imbabura, Ecuador (type), and Jiménez, Colombia (type in Tring Museum examined); Chapman, Bull. Amer. Mus. N. H., 55, p. 581, 1926—Mindó, Ecuador, and Chocó, Colombia (crit.).

*Turdus obsoletus* (not of Lawrence) Berlepsch and Taczanowski, Proc. Zool. Soc. Lond., 1883, p. 539—Chimbo, Ecuador; Ménégau, Miss. Serv. Géogr. Armée Mes. Arc Mérid. Equat., 9, p. B 69, 1911—Pachijal, road to Esmeraldas, Ecuador.

<sup>1</sup>*Turdus fumigatus colombianus* Hartert and Hellmayr: Most nearly related to *T. f. hauxwelli*, but much lighter, more fulvous brown above; under parts more olivaceous with hardly any white in the middle of the abdomen; distinct, though narrow, ochraceous margins along the inner web of the remiges; bill larger. Wing (adult male), 110; tail, 90; bill, 20.

A female in first annual plumage from San Antonio (alt. 6,600 ft.), above Cali, differs from the type by more fulvous, almost buckthorn brown, chest and sides; much deeper, ochraceous-tawny axillars and under wing coverts, and much darker brown upper parts, which are hardly different in shade from certain Panama examples of *T. f. obsoletus*. This bird, while widely diverging from *T. f. parambanus*, clearly suggests intergradation to *T. f. obsoletus*, of which *T. f. colombianus* appears to be the representative in the upper Cauca Valley.

<sup>2</sup>*Turdus fumigatus parambanus* Hartert: Similar to *T. f. obsoletus* and agreeing with it in stout, blackish bill; upper parts decidedly darker, bister rather than between snuff brown and sepia, with the tail duller and less rufescent; foreneck, breast, and sides more brownish, nearer Saccardo's umber instead of tawny-olive. As in *obsoletus*, there is no trace of an ochraceous inner margin to the remiges; the under wing coverts are of the same bright ochraceous-buff; the middle of the abdomen is extensively white. From *T. f. hauxwelli* it may be distinguished by much darker, duller bister upper surface; much duller brownish, less tawny, foreneck, breast, and sides; less brown on under tail coverts; larger, blacker bill. Wing, (two males) 115–120, (four females) 110–116; tail, 85–90; bill, 21–22.

A single male from Jiménez, on the Pacific slope of the western Cordillera above Los Cisneros [=Juntas, Rio Dagua], Colombia, must undoubtedly be referred to the present form.

*Material examined*.—Colombia: Jiménez, 1.—Ecuador: Paramba, 3; Mindó, 3.

*Planesticus obsoletus* Ridgway, Bull. U. S. Nat. Mus., 50, Part 4, p. 114, 1907—part, Chimbo, Ecuador.

*Merula (Planesticus) obsoleta parambana* Lönnberg and Rendahl, Ark. Zool., 14, No. 25, p. 77, 1922—Mindo, Ecuador.

**Range.**—Tropical zone of western Ecuador and southern Pacific Colombia (Chocó; Jiménez).

**\**Turdus fumigatus obsoletus* Lawrence.<sup>1</sup> McLEANNAN'S THRUSH.**

*Turdus obsoletus* Lawrence, Ann. Lyc. Nat. Hist. N. Y., 7, p. 470, Feb., 1862—Lion Hill, Panama Railroad (type now in the American Museum of Natural History, New York); idem, l.c., 9, pp. 91, 145, 1868—Cervantes, Costa Rica; Baird, Rev. Amer. Bds., 1, p. 28, 1864—Panama (monog.); Salvin, Proc. Zool. Soc. Lond., 1867, p. 133—Santa Fé, Veragua; idem, Ibis, 1869, p. 312—Costa Rica (crit.); Frantzius, Journ. Orn., 17, p. 290, 1869—Orósi and Volcan de Póas, Costa Rica; Salvin, Proc. Zool. Soc. Lond., 1870, p. 180—Costa Rica (crit.); Boucard, l.c., 1878, p. 50—Naránjo, Costa Rica; Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 19, 1879—Costa Rica, Veragua (Santa Fé), and Panama (Lion Hill); Seebohm, Cat. Bds. Brit. Mus., 5, p. 218, 1881—Costa Rica and Panama; Sharpe, in Seebohm, Monog. Turd., 1, p. 249, pl. 57, 1898—Costa Rica and Panama.

*Merula obsoleta* Zeledón, Anal. Mus. Nac. Costa Rica, 1, p. 104, 1887—Zarcéro de Alajuela, Siquirris, and Naránjo de Cartago, Costa Rica; Bangs, Proc. New Engl. Zool. Cl., 3, p. 49, 1902—Caribbean slope of Volcan de Chiriquí, Panama.

*Planesticus obsoletus* Ridgway, Bull. U. S. Nat. Mus., 50, Part 4, p. 114, 1907—part, "highlands" of Costa Rica and Panama (monog.); Carriker, Ann. Carnegie Mus., 6, p. 741, 1910—Juan Viñas and Guápiles, Caribbean slope of Costa Rica.

*Turdus obsoletus colombianus* (not of Hartert and Hellmayr) Griscom, Bull. Mus. Comp. Zool., 69, p. 182, 1929—Cana, Panama.

**Range.**—Caribbean slope of Costa Rica and Panama, east to Darien.

1: Costa Rica (unspecified, 1).

***Turdus lawrencii* Coues.<sup>2</sup> LAWRENCE'S THRUSH.**

<sup>1</sup> *Turdus fumigatus obsoletus* Lawrence, while not with certainty distinguishable, so far as the coloration of the under parts is concerned, from pale-bellied specimens of *T. f. hauzwelli*, may easily be differentiated by its decidedly larger (always blackish) bill and much duller as well as darker (between snuff brown and sepia) upper parts.

The few Costa Rican birds examined are brighter, warmer brown above, and more brownish on breast and sides, but the divergency is rather insignificant.

**Material examined.**—Costa Rica: Orósi, 1; Juan Viñas, 1; unspecified, 1.—Panama: Caribbean slope of Volcan de Chiriquí, 1; Lion Hill, 1; Tacarcuna, 7.

<sup>2</sup> *Turdus lawrencii* Coues: Upper parts brownish olive to olive brown, more brownish on pileum and slightly more olivaceous on rump and tail coverts; wings and tail dusky; upper wing coverts, inner remiges, and basal portion of outer web of rectrices edged with the color of the back; sides of head and neck like the pileum,

*Turdus brunneus* (not of Boddaert, 1783) Lawrence, Ibis, (4), 2, p. 57, pl. 1, 1878—"Upper Amazons" (type, now in the American Museum of Natural History, New York, examined).

*Turdus lawrencii* Coues, Bull. U. S. Geol. Geog. Surv. Terr., 5, No. 4, p. 570, Sept., 1880—new name for *Turdus brunneus* Lawrence, preoccupied.

*Turdus altiloquus* Todd, Proc. Biol. Soc. Wash., 38, p. 92, 1925—Arimã, Rio Purús (type), São Paulo de Olivença, Tonantins, and Caviana, Rio Solimões, Brazil (type in Carnegie Museum examined).

*Turdus leucomelas* (not of Vieillot) Lawrence, Ann. Lyc. Nat. Hist. N. Y., 9, p. 265 (in text), 1869—Pebas.

*Merula leucops* (not *Turdus leucops* Taczanowski) Seebohm, Cat. Bds. Brit. Mus., 5, p. 241, 1881—part, descr. of female, Chamicuros; Sharpe, in Seebohm, Monog. Turd., 2, p. 47, pl. 88 (female), 1900—part, Chamicuros, Peru, and Sarayacu, Ecuador (spec. examined).

*Planesticus lawrencii* Naumburg, Bull. Amer. Mus. N. H., 60, p. 332, 1930—Barão Melgaço, northern Matto Grosso.

**Range.**—Upper Amazonia, from eastern Ecuador (Sarayacu; El Loreto; Orillas del Mirahuali) and northern Peru (Pebas; Chami-

lores slightly more sooty; anterior and lateral under parts buffy brown of various shades, sometimes approaching wood brown, in others dull grayish buffy brown, this color fading to pale buffy brownish, light buff, or whitish on throat, relieved by strongly marked blackish shaft-streaks, and passing into dingy grayish or whitish, overlaid with brownish, in the middle of the abdomen; under tail coverts dark brown, with the apical third white or buffy white; axillars and under wing coverts bright ochraceous-buff to ochraceous-tawny; bill bright yellow in adult males, blackish in females and immature birds. Wing, (adult male) 113–120, (female) 109–113; tail, 89–97, (female) 83–90; bill, 181–9½.

*T. lawrencii* is a very distinct species with no near relative. From *T. fumigatus huxwelli*, which inhabits the same section of upper Amazonia, it is immediately distinguished by the longer second primary (which falls between the fifth and seventh instead of between the seventh and eighth); much heavier and blacker streaking of the throat; dark brownish olive (instead of rufous brown) upper parts, sides of the head, and wing edgings; dusky (instead of brown) tail; much duller (less tawny) anterior and lateral under parts; and the bright yellow bill of the adult males.

The type, a Hauxwellian skin, while somewhat faded through age, is so closely approached by certain specimens from the Rio Solimões that I have no doubt as to the identity of *T. altiloquus* and *T. lawrencii*, inasmuch as a couple of adults from eastern Ecuador (Tring Museum) cannot be distinguished from Brazilian examples. The plate depicting the type is misleading, the coloration being altogether too light and too greenish. *T. lawrencii* is the bird mistaken for the female of *P. leucops* by both Seebohm and Sharpe, and while the description given by the latter author in the "Monograph of the Turdidae" fits the male very well, the figure on pl. 88 is again faulty owing to its reddish brown tints. Thanks to the courtesy of Mr. N. B. Kinnear I have been enabled to examine the Chamicuros bird, an adult male with yellow bill, and found it to be identical with others from the Rio Solimões. A single female (first annual) from Roraima (alt. 3,500 ft.), collected by H. Whitely on October 31, 1883 (Brit. Mus. Reg. 85.3.2.321) seems likewise referable to the present species.

**Material examined.**—Ecuador: Orillas del Mirahuali, 1 (adult male); El Loreto, 1 (adult female); Sarayacu, 1 (adult female).—Peru: Pebas, 1 (the type); Chamicuros, 1 (adult male).—Brazil: Arimã, Rio Purús, 4; São Paulo de Olivença, Rio Solimões, 2; Tonantins, 1; Caviana, Rio Solimões, 1; Barão Melgaço, Matto Grosso, 1.—British Guiana: Roraima (alt. 3,500 ft.), 1 (female in first annual plumage).

curos) through western Brazil (Arimã, Rio Purús; São Paulo de Olivença, Tonantins, and Caviãna, Rio Solimões) south to northern Matto Grosso (Barão Melgaço); British Guiana (Roraima).

**\**Turdus ignobilis differens* (Nelson).<sup>1</sup> CHIAPAS THRUSH.**

*Merula differens* Nelson, Proc. Biol. Soc. Wash., 14, p. 175, 1901—Pinabete, Chiapas, Mexico (type in U. S. National Museum).

*Turdus plebejus rafaelsensis* Miller and Griscom, Amer. Mus. Nov., 183, p. 4, 1925—San Rafael del Norte, Nicaragua (type in the American Museum of Natural History, New York).

*Merula plebeius* (not *Turdus plebeius* Cabanis) Nelson, Auk, 15, p. 161, 1898—Pinabete, Chiapas.

*Turdus plebeius* Sharpe, in Seebohm, Monog. Turd., 1, p. 247, 1898—part, Guatemala (Sierra de las Minas), Nicaragua (Jali, San Rafael del Norte, and Matagalpa), and Chiapas (Volcan de Tacana and "Pinapek" [= Pinabete]).

*Turdus differens* Sharpe, in Seebohm, Monog. Turd., 2, p. 242, 1902—Chiapas and Nicaragua (crit.).

*Planesticus differens* Ridgway, Bull. U. S. Nat. Mus., 50, Part 4, p. 123, 1907—Pinabete, Chiapas (monog.).

**Range.**—Highlands of southeastern Mexico, in State of Chiapas (Volcan de Tacana, Pinabete), south through Guatemala (Sierra de las Minas, Santa Elena) and El Salvador to Nicaragua.

4: Guatemala (Santa Elena, Tecpam, 1); Nicaragua (San Rafael del Norte, 3).

**\**Turdus ignobilis plebejus* Cabanis.<sup>2</sup> CABANIS'S THRUSH.**

*Turdus plebejus* Cabanis, Journ. Orn., 8, Sept., 1860, p. 323, pub. Jan., 1861—Costa Rica (type in Berlin Museum); Frantz, l.c., 17, p. 290, 1869—mountain forests of Costa Rica; Kennard and Peters, Proc. Bost. Soc. N. H., 38, p. 460, 1928—Boquete Trail, Panama.

<sup>1</sup> *Turdus ignobilis differens* (Nelson): Similar to *T. i. plebeius*, but much browner throughout, the upper parts inclining to raw umber instead of being grayish olive brown, while the ventral surface is olivaceous broccoli brown rather than light hair brown (grayish brown), with the dusky streaks on the throat less distinct, sometimes nearly evanescent. Wing (males), 130–138; tail, 100–109.

I do not see my way clear to recognize more than one form in northern Central America. The supposed color differences between Chiapas and Guatemalan specimens on one side and those from Nicaragua on the other do not hold in the series examined, but it may be that the latter average slightly smaller.

**Material examined.**—Chiapas: Pinabete, 1; Volcan de Tacana, 4.—Guatemala: Sierra de las Minas, 3; Santa Elena, Tecpam, 1.—Nicaragua: San Rafael del Norte, 7; Matagalpa, 2.

<sup>2</sup> This is merely a well-marked race of the South American group typified by *T. ignobilis*, at once distinguished by its larger size, dark head, uniform light grayish brown under parts without any white in the middle, grayish rather than buffy white throat, and differently colored under tail coverts.

### 392 FIELD MUSEUM OF NATURAL HISTORY—ZOOLOGY, VOL. XIII

*Turdus plebeius* Sclater, Cat. Coll. Amer. Bds., p. 358, 1862—Costa Rica; Lawrence, Ann. Lyc. Nat. Hist. N. Y., 9, p. 91, 1868—Dota, San José, La Palma, Grecia, and Cervantes, Costa Rica; Boucard, Proc. Zool. Soc. Lond., 1878, p. 50—Navárrro, Costa Rica; Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 17, 1879—Volcan de Cartago, etc., Costa Rica; Seebohm, Cat. Bds. Brit. Mus., 5, p. 215, 1881—Costa Rica; Sharpe, in Seebohm, Monog. Turd., 1, p. 247, pl. 56, 1898—part, Costa Rica.

*Merula plebeia* Ridgway, Proc. U. S. Nat. Mus., 5, p. 494, 1883—Volcan de Irazú, Costa Rica; Zeledón, Anal. Mus. Nac. Costa Rica, 1, p. 104, 1887—Zarcéro de Alajuela and Volcan de Irazú, Costa Rica.

*Merula plebejus* Bangs, Proc. New Engl. Zool. Cl., 3, p. 49, 1902—Boquete, Chiriquí, Panama.

*Planesticus plebejus* Ridgway, Bull. U. S. Nat. Mus., 50, Part 4, p. 122, 1907—Costa Rica and Panama (monog.); Ferry, Field Mus. Nat. Hist., Orn. Ser., 1, p. 272, 1910—Coliblanco and Volcan de Turrialba, Costa Rica; Carriker, Ann. Carnegie Mus., 6, p. 739, 1910—Las Vueltas de Dota, Volcan de Irazú, San Pedro, Cariblanco de Sarapiquí, Tierra Blanca, La Hondura, Ujurrás de Térraba, Costa Rica (habits).

**Range.**—Highlands of Costa Rica and western Panama (Chiriquí).<sup>1</sup>

26: Costa Rica (Coliblanco, 20; Volcan de Turrialba, 2; Volcan de Irazú, 4).

#### ***Turdus ignobilis ignobilis* Sclater. BLACK-BILLED THRUSH.**

*Turdus ignobilis* Sclater, Proc. Zool. Soc. Lond., 25, p. 273, 1857—Bogotá (type in coll. of P. L. Sclater, now in British Museum, examined); idem, l.c., 27, p. 328, 1859—"interior of New Granada" (monog.); idem, Cat. Coll. Amer. Bds., p. 3, 1862—Bogotá; Sclater and Salvin, Proc. Zool. Soc. Lond., 1879, p. 491—Retiro and Santa Elena, central Andes, Antioquia (eggs descr.); Seebohm, Cat. Bds. Brit. Mus., 5, p. 214, 1881—Bogotá and Medellin, Colombia; Berlepsch, Journ. Orn., 32, p. 278, 1884—Bucaramanga; Sharpe, in Seebohm, Monog. Turd., 1, p. 241, 1898—Bogotá and Medellin (monog.).

*Turdus* sp. Sclater, Proc. Zool. Soc. Lond., 23, p. 145, 1855—Bogotá.

*Merula ignobilis* Stone, Proc. Acad. Nat. Sci. Phila., 51, p. 312, 1899—Rio Totare and Ibagué, Tolima, Colombia.

*Turdus ignobilis ignobilis* Hellmayr, Journ. Orn., 50, p. 59, 1902—Bogotá and Bucaramanga (crit.).

*Planesticus ignobilis ignobilis* Chapman, Bull. Amer. Mus. N. H., 36, p. 534, 1917—La Frijolera and Barro Blanco, lower Cauca; Rio Toché, Honda, and El Consuelo, Magdalena Valley; Fusugasugá; west slope below Andalucia; near San Agustín and La Palma, Colombia.

*Turdus leucomelas* (errore) Sclater and Salvin, Exot. Orn., p. 143, 1869—part, Bogotá.

<sup>1</sup> Specimens from Chiriquí (Boquete) average slightly smaller than those from Costa Rica.

*Range*.—Tropical zone of eastern Colombia in the valley of the Magdalena River up to San Agustín, extending across Antioquia to the lower Cauca on the western slope of the central Andes (La Frijolera).<sup>1</sup>

**\**Turdus ignobilis goodfellowi* Hartert and Hellmayr.<sup>2</sup> GOOD-FELLOW'S BLACK-BILLED THRUSH.**

*Turdus ignobilis goodfellowi* Hartert and Hellmayr, Nov. Zool., 8, p. 492, 1901—Castilla, Cauca Valley, Colombia (type in Tring Museum); Hellmayr, Journ. Orn., 50, p. 59, 1902—Castilla and Popayán, Cauca; Hartert, Nov. Zool., 27, p. 476, 1920—Castilla (type).

*Turdus ignobilis* (not of Sclater) Goodfellow, Ibis, 1901, p. 310—part, Popayán, Colombia.

*Planesticus ignobilis goodfellowi* Chapman, Bull. Amer. Mus. N. H., 36, p. 535, 1917—Caldas (upper Dagua), San Antonio, Cali, Guengué, La Manuelita, Rio Frio, Miraflores, upper Cauca.

*Range*.—Tropical zone of western Colombia, in the upper Cauca Valley and the Caldas basin (upper Dagua River), on the Pacific side of the western Cordillera.

1: Colombia (San Antonio, western Andes, 1).

**\**Turdus ignobilis debilis* Hellmayr.<sup>3</sup> AMAZONIAN BLACK-BILLED THRUSH.**

*Turdus ignobilis debilis* Hellmayr, Journ. Orn., 50, p. 56, 1902—Rio Madeira [=Salto Theotonio], Brazil (type in Vienna Museum); l.c., p. 59, 1902—eastern Ecuador, Peru, and Rio Madeira (synon.); idem, Nov. Zool., 13,

<sup>1</sup> Birds from the Magdalena Valley agree well with "Bogotá" skins, and one from Medellín is similar. Specimens from La Frijolera (on the west side of the central Andes, lower Cauca), by, on average, darker upper parts and deeper brownish chest, manifest a slight tendency toward the characters of *T. i. goodfellowi*.

*Material examined*.—Colombia: "Bogotá," 16 (including the type); Bucaramanga, 2; El Consuelo (above Honda), 1; Fusugasugá, 2; Aguadita, 1; San Agustín, Huila, 1; Medellín, 1; La Frijolera, Antioquia, 3.

<sup>2</sup> *Turdus ignobilis goodfellowi* Hartert and Hellmayr: Agreeing with *T. i. ignobilis* in large bill, coloration of throat, and absence of white jugular spot, but distinguished by darker, sepia instead of brownish olive or olive brown, upper parts, and deeper brown, less buffy, foreneck, chest, and flanks. Wing, (ten adult males) 112–118, (eight adult females) 110–115; tail, 86–92; bill, 19–21.

*Material examined*.—Colombia: Cauca Valley, Castilla, 1; Cali, 10; Popayán, 2; San Antonio, western Andes, 3; Caldas (upper Rio Dagua), Valle, 3.

<sup>3</sup> *Turdus ignobilis debilis* Hellmayr: Readily distinguishable from the two preceding races by lesser dimensions; smaller, weaker bill; conspicuously white throat with more sharply defined dusky streaks; immaculate white jugular spot; paler and more grayish chest and sides. Wing, (males) 108–115, (females) 104–110; tail, 83–92; bill, 17–19.

Birds from different parts of Amazonia agree very well together, though there is a certain amount of variation according to season. I am unable to satisfactorily separate the Venezuelan specimens. Two from Oropé can be matched

p. 5, 1906—Rio Napo, Sarayacu, Zamora, Archidona (Ecuador), Ucayali, Xeberos, Iquitos, Chirimoto, Guayabamba (Peru), and "Bogotá" (crit.); Ihering and Ihering, Cat. Faun. Braz., 1, p. 320, 1907—range (excl. "Trinidad," errore); Hellmayr, Nov. Zool., 14, p. 41, 1907—Teffé, Rio Solimões; idem, l.c., 17, p. 258, 1910—Santa Isabel, Rio Madeira; Snethlage, Journ. Orn., 56, p. 7, 1908—Bom Lugar, Rio Purús, Brazil; idem, Bol. Mus. Goeldi, 8, p. 496, 1914—Rio Purús (Bom Lugar) and Monte Alegre (errore<sup>1</sup>); Chapman, Bull. Amer. Mus. N. H., 55, p. 581, 1926—Zamora, Ecuador; Zimmer, Field Mus. Nat. Hist., Zool. Ser., 17, p. 410, 1930—Vista Alegre, Huánuco, Peru.

*Turdus albiventris* (not of Spix) Sclater, Proc. Zool. Soc. Lond., 26, p. 451, 1858—Zamora, Ecuador; idem, l.c., 27, p. 328, 1859—part, Zamora, Ecuador; idem, Cat. Coll. Amer. Bds., p. 3, 1862—part, spec. f, Zamora.

*Turdus amaurochalinus* (not of Cabanis) Sclater and Salvin, Proc. Zool. Soc. Lond., 1866, p. 177—lower Ucayali, Peru; idem, l.c., 1867, p. 749—Xeberos, Peru (spec. in British Museum examined).

*Turdus poiteaui* (not of Pucheran) Pelzein, Orn. Bras., 2, p. 94, 1868—Salto Theotonio, Rio Madeira, Brazil.

*Turdus leucomelas* (not of Vieillot) Sclater and Salvin, Exot. Orn., p. 143, 1869—part, Ucayali, eastern Peru; idem, Proc. Zool. Soc. Lond., 1873, p. 256—lower Ucayali and Xeberos, Peru; Taczanowski, l.c., 1874, p. 503—Amable Maria, Dept. Junín, Peru; Seebohm, Cat. Bds. Brit. Mus., 5, p. 213, 1881—part, spec. a, b, lower Ucayali and Xeberos, Peru.

*Turdus ignobilis* (not of Sclater) Taczanowski, Proc. Zool. Soc. Lond., 1882, p. 4—Chirimoto and Huambo, Peru (spec. examined); idem, Orn. Pér., 1, p. 491, 1884—Amable Maria, Huambo, Chirimoto, Ucayali, and Xeberos, Peru; Berlepsch and Stolzmann, Proc. Zool. Soc. Lond., 1896, p. 326—La Merced, Chanchamayo, Peru; Salvadori and Festa, Boll. Mus. Zool. Torino, 14, No. 357, p. 3, 1900—Gualaquiza, Ecuador (spec. examined); Goodfellow, Ibis, 1901, p. 310—part, Archidona and Coca River, upper Napo, Ecuador (spec. examined).

(?) *Turdus gymnophthalmus* Allen, Bull. Amer. Mus. N. H., 2, p. 78, 1889—"Yungas," Bolivia.

*Turdus maculirostris* (not of Berlepsch and Taczanowski) Sharpe, in Seebohm, Monog. Turd., 1, pp. 239, 240, 1898—part, spec. a, d, e, h, k-o, Napo,

by others from Peru, while the two remaining ones, by darker brown dorsal surface and less whitish throat, show a slight approach to *T. i. ignobilis*. In size, they are possibly slightly smaller (wing of males, 106–108), but the available series is not large enough to make sure of this insignificant divergency.

*Material examined.*—Venezuela: Oropé, Zulia, 3; La Uruca, Tachira, 1.—Colombia: La Morelia, Caquetá, 1; "Bogotá," 3.—Ecuador: Archidona, 2; Rio Napo, 2; "Sarayacu," 4; Zamora, 1; Gualaquiza, 2.—Peru: Iquitos, 1; Xeberos, 1; lower Ucayali, 1; Guayabamba, 5; Huambo, 3; Chirimoto, 3; Tarapoto, 1; La Laguna, 1; Yurimaguas, 1; Moyobamba, 4; Tarapoto, 1; Lopuna, 1; Vista Alegre, Huánuco, 2; La Merced, Chanchamayo, Junín, 3.—Brazil: Teffé, Rio Solimões, 1; Santa Isabel, Rio Preto, Rio Madeira, 1; Salto Theotonio, Rio Madeira, 3.

<sup>1</sup> Locality doubtless erroneous, probably Cussary, on the south bank of the Amazon.



Sarayacu, Zamora (Ecuador), Ucayali, Xeberos, Iquitos, Chirimoto, and Guayabamba (Peru).

*Planesticus ignobilis debilis* Chapman, Bull. Amer. Mus. N. H., 36, p. 535, 1917—Quetame, Buena Vista, Villavicencio, and La Morelia, eastern Colombia; Naumburg, l.c., 60, p. 331, 1930—Salto Theotónio, Matto Grosso.

*Range*.—Upper Amazonia, from the eastern base of the eastern Andes of Colombia south through eastern Ecuador and Peru to northern Bolivia, and through northwestern Brazil as far east as the Rio Negro and Rio Madeira (Santa Isabel, Rio Preto; Salto Theotónio); apparently also in the tropical zone of western Venezuela south of Lake Maracaibo (Orope, Zulía; La Uraça, Tachira).<sup>1</sup>

13: Venezuela (Orope, Zulía, 3; La Uraça, Tachira, 1); Colombia (La Morelia, Caquetá, 1); Peru (La Laguna, lower Huallaga, 1; Yurimaguas, 1; Moyobamba, 4; Vista Alegre, Huánuco, 2).

***Turdus ignobilis murinus* Salvin.<sup>2</sup> RORAIMA BLACK-BILLED THRUSH.**

*Turdus murinus* Salvin, Ibis, (5), 3, p. 197, 1885—Roraima and Merumé Mountains, British Guiana (type in British Museum); Sharpe, in Seebohm, Monog. Turd., 1, p. 243, pl. 54, 1898—part, Roraima and Merumé Mountains.

*Turdus ignobilis* (not of Sclater) Tristram, Cat. Coll. Bds., p. 126, 1889—Roraima; Penard and Penard, Vog. Guyana, 2, p. 547, 1910—Guiana (part).

*Turdus ignobilis murinus* Hellmayr, Journ. Orn., 50, p. 60, 1902—Roraima and Merumé Mountains; Chapman, Bull. Amer. Mus. N. H., 63, p. 110, 1931—Merumé Mountains, Roraima, and Duida (crit., vertical range).

*Planesticus murinus* Chubb, Bds. Brit. Guiana, 2, p. 380, 1921—Mount Roraima.

*Range*.—Subtropical zone of British Guiana (Roraima and Merumé Mountains, at elevations of from 3,000 to 5,000 ft.), and Venezuela (Mount Duida).

<sup>1</sup> The recently described *T. i. sandiae* Carriker (Proc. Acad. Nat. Sci. Phila., 85, p. 34, 1933—Huacamayo, Prov. Sándia, Dept. Puno) can hardly belong to this group, judging from the color of the bill and the rich cinnamon ochraceous under wing coverts.

<sup>2</sup> *Turdus ignobilis murinus* Salvin: Nearest to *T. i. ignobilis*, with an equally strong bill and without an immaculate white spot in the middle of the foreneck; but larger, chest and sides paler brown, throat whiter, conspicuously streaked with dusky, more like *T. i. debilis*. Wing, (six males) 118–123, (three females) 116–119; tail, 90–96, (female) 85–93; bill, 19–21.

*Material examined*.—British Guiana: Roraima, 11.

***Turdus ignobilis arthuri* (Chubb).<sup>1</sup> ARTHUR'S BLACK-BILLED THRUSH.**

*Planesticus arthuri* Chubb, Bull. Brit. Orn. Cl., 33, p. 131, May, 1914—Abary River, British Guiana (type in British Museum examined); idem, Bds. Brit. Guiana, 2, p. 385, pl. 5, fig. 2, 1921—Abary River and Makauria River, British Guiana.

*Turdus ignobilis arthuri* Chapman, Bull. Amer. Mus. N. H., 63, p. 110 (in text), 1931—Tropical zone of Mount Duida, Venezuela (crit.).

(?) *Turdus murinus* (not of Salvin) Sharpe, in Seebohm, Monog. Turd., 1, p. 243, 1898—part, Oyapock River.

**Range.**—Tropical zone of British Guiana (Abary and Makauria rivers), (?) French Guiana (Oyapock River),<sup>2</sup> and Venezuela (base of Mount Duida).

**\**Turdus amaurochalinus* Cabanis. DUSKY THRUSH.**

*Turdus amaurochalinus* Cabanis, Mus. Hein., 1, p. 5, Oct., 1851—Brazil (types in Heine Collection, Halberstadt); Sclater, Proc. Zool. Soc. Lond., 27, p. 329, 1859—Brazil (ex Cabanis); Cabanis, Journ. Orn., 22, p. 82, 1874—Cantagallo, Rio; Berlepsch and Ihering, Zeits. Ges. Orn., 2, p. 112, 1885—Taquara do Mundo Novo, Rio Grande do Sul; Boucard and Berlepsch, The Humming Bird, 2, p. 42, 1892—Porto Real, Rio; Stempelmann and Schulz, Bol. Acad. Nac. Ci. Cordoba, 10, p. 397, 1890—Cordoba; Hellmayr, Journ. Orn., 50, pp. 53, 58, 1902 (crit., range); Berlepsch and Stolzmann, Ornith., 13, p. 105, 1906—Rio Cadena, Marcapata, Peru; Ihering and Ihering, Cat. Faun. Braz., 1, p. 319, 1907—São Paulo (Ypiranga, São Paulo, Cachoeira, Salto Grande do Paranapanema), Minas Geraes (Vargem Alegre, Marianna), Maranhão (Primeira Cruz), Paraguay (Puerto Bertoni), Argentina (Las Talas); Hartert and Venturi, Nov. Zool., 16, p. 161, 1909—Tucumán, Buenos Aires (Pacheco and Barracas al Sud), and Ocampo, Chaco (nest and eggs descr.); Hellmayr, Nov. Zool., 17, p. 259, 1910—Santa Isabel, Rio Preto, Rio Madeira; Reiser, Denks. Math.-Naturw. Kl. Akad. Wiss. Wien, 76, p. 78, 1910—Lake Parnaguá, Piahy; Chrostowski, C. R. Soc. Sci. Varsovie, 5, pp. 484, 498,

<sup>1</sup> *Turdus ignobilis arthuri* (Chubb): Much smaller than *T. i. murinus*; upper parts as well as the edges to wing and tail feathers mouse gray; sides of the head sooty gray instead of dark brown; foreneck, chest, sides, and flanks light mouse gray with a hardly perceptible brownish tinge anteriorly. Wing (unsexed adult, the type), 105; tail, 80; bill, 18½. While agreeing in size and color of throat with *T. i. debilis*, the present form lacks the white spot in the middle of the foreneck and is much paler and grayer throughout. *T. i. arthuri* appears to be a lowland representative of *T. i. murinus*. Chapman lately recorded it from the base and lower slopes of Mount Duida, where it intergrades with *T. i. murinus*, found higher up on the same mountain in the Subtropical zone.

**Material examined.**—British Guiana: Abary River, 1 (the type).

<sup>2</sup> The status of the Oyapock bird is doubtful. Mr. N. B. Kinnear (in litt.), who courteously reexamined it on my behalf, thinks it separable from *T. i. arthuri* by its less grayish coloration. In size, it very nearly agrees with the type (wing, 109), being much smaller and less brownish throughout than *T. i. murinus*. More material should be studied.

1912—Vera Guarany and Curytiba, Paraná; Bertoní, Faun. Parag., p. 59, 1914—Alto Paraná, Paraguay; Sneath, Bol. Mus. Goeldi, 8, p. 496, 1914—Pará; idem, Bol. Mus. Nac. Rio de Janeiro, 2, No. 6, p. 40, 1926—Ceará; Wetmore, Bull. U. S. Nat. Mus., 133, p. 357, 1926—Chaco, Formosa, Uruguay, and Tucumán (habits); Friedmann, Bull. Mus. Comp. Zool., 68, p. 213, 1927—Concepción, Tucumán.

*Turdus leucomelas* Vieillot, Nouv. Dict. Hist. Nat., nouv. éd., 20, p. 238, 1818—based on "Zorzal obscuro y blanco" Azara, No. 80, part ("female") Paraguay;<sup>1</sup> Pelzel, Orn. Bras., 2, p. 93, 1868—part, Sapitiba (Rio de Janeiro), Mattodentro, Goyaba, and Ypanema (São Paulo), Curytiba (Paraná), Goyaz City (spec. in Vienna Museum examined); Sclater and Salvin, Proc. Zool. Soc. Lond., 1868, p. 138—Conchitas, Buenos Aires; idem, Exot. Orn., p. 143, pl. 72, 1869—part, Paraguay, Argentina, São Paulo, Minas Geraes, Bolivia, and "Cayenne" (errore); Reinhardt, Vidensk. Medd. Naturhist. Foren., 1870, p. 450—Lagôa Santa, Minas Geraes; Hamilton, Ibis, 1871, p. 302—São Paulo; Durnford, Ibis, 1877, p. 166—Baradero; Sclater and Salvin, Proc. Zool. Soc. Lond., 1879, p. 591—Mapiri, Baganti, Tilotilo, and Santa Cruz, Bolivia; Seebohm, Cat. Bds. Brit. Mus., 5, p. 213, 1881—part, Paysandú (Uruguay), Rio Negro, and "Chili" (errore); White, Proc. Zool. Soc. Lond., 1882, p. 592—Concepción (Misiones) and Santo Tomé (Corrientes); Barrows, Bull. Nutt. Orn. Cl., 8, p. 85, 1883—Concepción (Entre Rios) and Buenos Aires; Withington, Ibis, 1888, p. 462—Lomas de Zamora, Buenos Aires; Sclater and Hudson, Arg. Orn., 1, p. 1, 1888—Argentina (habits); Frenzel, Journ. Orn., 39, p. 117, 1891—Cordoba; Kerr, Ibis, 1892, p. 122—Fortín Page, lower Pilcomayo; Aplin, Ibis, 1894, p. 161—Santa Elena, Monzón, and Rio Negro, Uruguay; Salvadori, Boll. Mus. Zool. Torino, 10, No. 208, p. 2, 1895—Villa Rica, Paraguay, and Santa Rosa, Salta; idem, l.c., 12, No. 292, p. 3, 1897—San Francisco, Bolivia, and San Lorenzo, Jujuy; Koslowsky, Rev. Mus. La Plata, 6, p. 277, 1895—Chilecito, La Rioja; Sharpe, in Seebohm, Monog. Turd., 1, p. 235, pl. 53, fig. 1, 1898 (monog.); Ihering, Ann. Est. Rio Grande do Sul, 16, p. 116, 1899—Mundo Novo and Pedras Brancas, Rio Grande do Sul; idem, Rev. Mus. Paul., 3, p. 127, 1899—Piquete, São Paulo; idem, l.c., 4, pp. 152, 199, 1900—Cantagallo, Rio (nesting habits); Kerr, Ibis, 1901, p. 222—Paraguayan Chaco; Lillo, Anal. Mus. Nac. Hist. Nat. Buenos Aires, 8, p. 171, 1902—Tucumán; Baer, Ornith., 12, p. 213, 1904—Santa Ana, Tucumán; Grant, Ibis, 1911, p. 82—Villa Franca, Paraguay, and Porto Esperança, Matto Grosso.

*Turdus albiventer* Spix, Av. Bras., 1, p. 70, 1824—part ("female"), Minas Geraes (cf. Hellmayr, Abhandl. 2. Kl. Bayr. Akad. Wiss., 22, No. 3, p. 618, 1906).

*Turdus albiventer* Sclater, Cat. Coll. Amer. Bds., p. 3, 1862—part, spec. a-c, "Cayenne," Brazil, Bolivia.

*Turdus albicollis* (not of Spix) Spix, Av. Bras., 1, pl. 70, 1824; Euler, Journ. Orn., 15, pp. 189, 192, 1867—Cantagallo, Rio de Janeiro.

*Turdus crotopheus* (not of Lichtenstein) Wied, Beitr. Naturg. Bras., 3, (2), p. 646, 1831—eastern Brazil (descr.); Burmeister, Syst. Uebers. Th.

<sup>1</sup> Cf. Bertoní, Anal. Cient. Parag., 1, No. 3, pp. 2-3, 1904; Dabbene, Anal. Mus. Nac. Hist. Nat. Buenos Aires, 23, p. 344, 1912.

Bras., 3, p. 123, 1856—Lagôa Santa, Minas Geraes (descr.); idem, Journ. Orn., 8, p. 252, 1860—Mendoza; idem, Reise La Plata St., 2, p. 474, 1861—Mendoza; Doering, Period. Zool. Arg., 1, p. 254, 1874—Rio Guayquiraro, Corrientes.

*Turdus olivaceus* (not of Linnaeus, 1766) Lafresnaye and d'Orbigny, Syn. Av., 1, in Mag. Zool., 7, cl. 2, p. 17, 1837—Yungas, Bolivia (type in Paris Museum examined); Hellmayr, Nov. Zool., 28, p. 239, 1921—Yungas, Bolivia (crit.).

*Turdus rufiventris* (not of Vieillot) d'Orbigny, Voy. Amér. Mérid., Ois., p. 203, 1838—part ("female"), from Buenos Aires to Santa Cruz, Bolivia (spec. from Corrientes examined in Paris Museum); Darwin, Zool. Beagle, 3, p. 59, 1839—Maldonado, Uruguay, and Rio Negro, Argentina.

*Turdus maculirostris* (not of Berlepsch and Taczanowski) Sharpe, in Seebohm, Monog. Turd., 1, pp. 239, 240, 1898—part, Mapiri and Baganti, Bolivia (cf. Hellmayr, Nov. Zool., 13, p. 6, 1906).

*Merula leucomelas* Lillo, Rev. Letr. Cienc. Soc., 3, p. 38, 1905—Tucumán.

*Merula amaurochalina* Bruch, Rev. Mus. La Plata, 11, p. 256, 1904—Salta, Oran; Chubb, Ibis, 1910, p. 611—Sapucay, Paraguay (eggs descr.); Ménégau, Rev. Franç. d'Orn., No. 115, p. 333, 1918—Villa Lutetia, San Ignacio, Misiones.

*Planesticus amaurochalinus* Dabbene, Anal. Mus. Nac. Hist. Nat. Buenos Aires, 18, p. 361, 1910—Argentina (range); idem, l.c., 23, p. 345, 1912—Paso Yuvay, Paraguay (crit.); idem, El Hornero, 1, p. 242, 1919—Martín García, Buenos Aires; Tremoleras, l.c., 2, p. 21, 1920—Uruguay; Daguerre, l.c., 2, p. 270, 1922—Rosas, Buenos Aires; Dinelli, l.c., 2, p. 312, 1922—Tucumán (nest and eggs descr.); Serié and Smyth, l.c., 3, p. 52, 1923—Santa Elena, Entre Ríos; Giacomelli, l.c., 3, p. 66, 1923—La Rioja; Pereyra, l.c., 3, p. 169, 1923—San Isidro and Zelaya, Buenos Aires; Hellmayr, Nov. Zool., 28, p. 238, 1921—Corrientes and Buenos Aires (crit.); Marelli, Mem. Min. Obr. Públ. for 1922–23, p. 653, 1924—Buenos Aires; Sztolcman, Ann. Zool. Mus. Pol. Hist. Nat., 5, p. 183, 1926—Marechal Mallet, Fazenda Ferreira, Cará Pintada, and Vermelho, Paraná; Holt, Bull. Amer. Mus. N. H., 57, p. 313, 1928—Bemfica and Monte Serrat, Itatiaya; Hellmayr, Field Mus. Nat. Hist., Zool. Ser., 12, p. 250, 1929—São Luiz (Maranhão), Varzea Formosa, Juá, and Serra de Baturité (Ceará); Laubmann, Wissen. Erg. Deuts. Gran Chaco Exp., Vögel, p. 321, 1930—Lapango (Formosa), San José (Santa Cruz) and Villa Montes (Tarija), Bolivia; Naumburg, Bull. Amer. Mus. N. H., 60, p. 330, 1930—Fort Wheeler, Paraguay, and Urucúm, Matto Grosso.

*Turdus gymnophthalmus* (errore) Sneath, Bol. Mus. Nac. Rio de Janeiro, 2, No. 6, p. 59, 1926—Anil and Tury-assú, Maranhão.

(?) *Merula cr. crotopezus* Ménégau, Rev. Franç. d'Orn., 9, p. 327, 1925—Las Garzas, Chaco de Santa Fé.

*Range.*—The whole of Brazil, from Pará and Maranhão south to Rio Grande do Sul, west to the Rio Madeira (Santa Isabel, Rio Preto); northern and central Argentina south to the Rio Negro;

Uruguay; Paraguay; Bolivia; and extreme southeastern Peru (Marcapata).<sup>1</sup>

40: Brazil (São Luiz, Maranhão, 1; Varzea Formosa, Ceará, 1; Juá, near Iguatú, Ceará, 2; Serra de Baturité, Ceará, 2; Santo Amaro, Bahia, 1; Rio das Velhas, near Lagôa Santa, Minas Geraes, 1; Baurú, São Paulo, 2; Joinville, Santa Catharina, 5; Urucúm de Corumbá, Matto Grosso, 3); Bolivia (Buenavista, Santa Cruz, 4; Parotani, Cochabamba, 2); Argentina (Concepción, Tucumán, 5; El Carrizal, Sierra de Cordoba, 1; Las Palmas, Chaco, 1; Isla Ella, delta of the Paraná, Buenos Aires, 1; Puerto Segundo, Misiones, 2; Caraguatay, Misiones, 1); Uruguay (Arazati, San José, 2; Rio Cebollati, Minas, 2; Quebrada de los Cuervos, Trente y Tres, 1).

**\**Turdus leucomelas leucomelas* Vieillot. AZARA'S THRUSH.**

*Turdus leucomelas* Vieillot, Nouv. Dict. Hist. Nat., nouv. éd., 20, p. 238, 1818—based on "Zorzal obscuro y blanco" Azara, No. 80, part ("male"), Paraguay;<sup>2</sup> Ihering and Ihering, Cat. Faun. Braz., 1, p. 318, 1907—part, spec. from São Paulo (Rincão) and Minas Geraes (Vargem Alegre); Bertoni, Faun. Parag., p. 59, 1914—Puerto Bertoni and Asunción, Paraguay; idem, Anal. Soc. Cient. Arg., 75, p. 95, 1913—Chaco.

*Turdus albiventer* (not of Spix) Pelzeln, Orn. Bras., 2, p. 93, 1868—part, Cimiterio, Ytararé, Ypanema, and Rio Paraná (São Paulo), Cuyabá and Villa Bella, Matto Grosso (spec. in Vienna Museum examined); idem, Nunq. Otios., 2, p. 291, 1872—Nova Friburgo, Rio; Allen, Bull. Amer. Mus. N. H., 3, p. 341, 1891—Chapada, Matto Grosso (eggs descr.); Boucard and Berlepsch, The Humming Bird, 2, p. 43, 1892—Porto Real, Rio; Sharpe, in Seebohm, Monog. Turd., 1, p. 257, 1898—part, São Paulo, Matto Grosso, and "Pelotas, Rio Grande do Sul" (errore); Salvadori, Boll. Mus. Zool. Torino, 15, No. 378, p. 3, 1900—Urucúm, Matto Grosso; Ihering, Rev. Mus. Paul., 3, p. 127, 1899—São Paulo; idem, l.c., 4, pp.

<sup>1</sup> Bolivian birds incline to greater measurements, particularly larger bill, but the variation is insignificant. There is much seasonal change in coloration, and the bill, in adult birds, is bright yellow in the tropical summer (October to February), dusky or blackish brown in winter (April to June).

Specific characters of this thrush are the blackish brown lores, forming a conspicuous dark spot in front of the eyes; the absence of pale streaks on the auriculars; the plain white jugular patch; and the white under tail coverts, only laterally bordered with dark brown.

In addition to our own series the following specimens have been examined.—Brazil, Piauí: Lagôa do Parnaguá, 2; Bahia, 5; Sapitiba, Rio de Janeiro, 2; São Paulo, São Paulo, 2; Ypanema, 5; Mattodentro, 1; São Sebastião, 1; Curytiba, Paraná, 1; Ararangua, Santa Catharina, 2; Camaquã and Taquara do Mundo Novo, Rio Grande do Sul, 5.—Paraguay: Bernalcué, 4; Sapucay, 1.—Bolivia: Yungas (types of *T. olivaceus*), 2; Omeja, 2; Chicani, 2; Songo, 1; Mapiri, 1; Baganti, 1; San Mateo, 3; Santa Cruz, 1; Samaipata, 1.—Argentina: Corrientes, 1.

<sup>2</sup> Cf. Bertoni, Anal. Cient. Parag., 1, No. 3, p. 2, 1904; Ihering and Ihering, Cat. Faun. Braz., 1, p. 318, 1907; Dabbene, Anal. Mus. Nac. Hist. Nat. Buenos Aires, 23, p. 344, 1912; Hellmayr, Field Mus. Nat. Hist., Zool. Ser., 12, p. 249 (note 1), 1929 (crit.).

152, 199, 1900—Nova Friburgo (eggs descr.); Hellmayr, Journ. Orn., 50, p. 61, 1902—part, São Paulo and Paraguay; idem, Nov. Zool., 15, p. 15, 1908—Goyaz and Fazenda Esperança, Goyaz.

*Merula albiventer* Chubb, Ibis, 1910, p. 609—Sapucay and Ybitimi, Paraguay.

*Planesticus albiventer* Dabbene, Anal. Mus. Nac. Hist. Nat. Buenos Aires, 23, p. 343, 1912—Gran Potrero, Paraguay (crit.); idem, Bol. Soc. Physis, 1, p. 352, 1914—Sapucay, Ybitimi, and Gran Potrero, Paraguay.

*Planesticus albiventer albiventer* Holt, Bull. Amer. Mus. N. H., 57, p. 313, 1928—Monte Serrat, Itatiaya.

*Planesticus leucomelas leucomelas* Naumburg, Bull. Amer. Mus. N. H., 60, p. 331, 1930—Paraguay (Trinidad) and Matto Grosso (Urucúm, Belvedere de Urucúm, Jurueña, and Tapirapoan).

**Range.**—Southern Brazil, in states of Rio de Janeiro, Minas Geraes, São Paulo, Goyaz, and Matto Grosso; Paraguay; eastern Peru (Moyobamba).<sup>1</sup>

9: Brazil (Veadeiros, Goyaz, 1; Chapada, Matto Grosso, 2; Baurú, São Paulo, 2; Fazenda Cayoá, Salto Grande do Rio Parapanema, São Paulo, 1); Peru (Moyobamba, 3).

#### \**Turdus leucomelas albiventer* Spix. SPIX'S THRUSH.

*Turdus albiventer* Spix, Av. Bras., 1, p. 70, pl. 69, fig. 2,<sup>3</sup> 1824—part ("male"), restr. type loc. Pará (type lost, formerly in Munich Museum; cf. Hellmayr, Abhandl. 2. Kl. Bayr. Akad. Wiss., 22, No. 3, p. 618, 1906); Cabanis, in Schomburgk, Reisen Brit. Guiana, 3, p. 666, "1848"—part, Bahia; Pelzeln, Orn. Bras., 2, p. 93, 1868—part, Pará, Rio Muriá, and Bahia (spec. in Vienna Museum examined); Seebohm, Cat. Bds. Brit. Mus., 5, p. 216, 1881—part, eastern Brazil south to Bahia; Sharpe, in Seebohm, Monog. Turd., 1, p. 257, pl. 59, 1898—part, Bahia, Pernambuco, Pará, Rio Muriá, and Mexiana; Hellmayr, Journ. Orn., 50, p. 61, 1902—part, Pará; Snethlage, Journ. Orn., 56, p. 497, 1908—Ilha de Goyana, Rio Tapajóz; Reiser, Denks. Math.-Naturw. Kl. Akad. Wiss. Wien, 76, p. 77, 1910—Pedrinha, Piranha, and Queimadas, Piahy; Hellmayr, Abhandl. Math.-Phys. Kl. Bayr. Akad. Wiss., 26, No. 2, pp. 86, 118, 1912—Pará, Rio Muriá, and Mexiana; Snethlage, Bol. Mus. Goeldi, 8, p. 496, 1914—part, Pará, Providencia, Apehú, Santa Isabel, Quatipurú, Tamucury,

<sup>1</sup> Paraguayan and south Brazilian specimens differ from typical *albiventer* by much deeper, buffy brown breast and sides, more brownish pileum, and brighter, nearly Dresden brown back, but the differences are discernible only in fresh plumage.

Three skins from Moyobamba, while agreeing in coloration of upper parts, are less extensively brownish below. Pending the receipt of a larger series, they seem better referred here than to any other race.

In addition to those listed above, we have examined the following specimens.—Paraguay: Bernalcué, 4.—Brazil, Matto Grosso: Cuyabá, 1; Chapada, 1; Villa Bella de Matto Grosso, 1; São Paulo, Cemeterio do Lambari, 1; Ytararé, 1; Ypanema, 1; Rio Paraná, 1; Minas Geraes, Agua Suja, near Bagagem, 3.

<sup>3</sup> The figure bears the erroneous caption "*T. albiventer fem.*"

Rio Tapajóz (Boim, Goyana), Marajó (São Natal, Pindobal), and Maranhão; idem, Bol. Mus. Nac. Rio de Janeiro, 2, No. 6, pp. 40, 59, 1926—Ceará and Maranhão (Anil, São Bento, Tury-assú); Stone, Proc. Acad. Nat. Sci. Phila., 80, p. 172, 1928—Pará.

*Turdus albiventris* Cabanis, Mus. Hein., 1, p. 4, 1851—Brazil (crit.); Burmeister, Syst. Uebers. Th. Bras., 3, p. 124, 1856—part, descr. of "female," based on Spix, Av. Bras., 1, pl. 69, fig. 2; Sclater, Proc. Zool. Soc. Lond., 27, p. 328, 1859—part, Bahia; Sclater and Salvin, l.c., 1867, p. 568—Mexiana; idem, Exot. Orn., p. 147, pl. 74, 1869—part, Bahia, Mexiana, Pará; Allen, Bull. Essex Inst., 8, p. 78, 1876—lower Amazon.

*Turdus leucomelas* (not of Vieillot) Ihering and Ihering, Cat. Faun. Braz., 1, p. 318, 1907—part, Pará and Bahia.

*Planesticus leucomelas albiventer* Hellmayr, Field Mus. Nat. Hist., Zool. Ser., 12, p. 249, 1929—Maranhão (São Luiz, Codó, Grajahú, Fazenda Inhumá, Miritiba), Piahy, and Ceará (Serra de Baturité).

**Range.**—Northeastern Brazil, from Pará (including the islands of Marajó and Mexiana) south to Bahia, west to the Tapajóz River.<sup>1</sup>

7: Brazil, Maranhão (São Luiz, Anil, 2; Grajahú, 1; Codó, Cocos, 1; Inhumá, Alto Parnahyba, 1); Ceará (Serra de Baturité, 1); Pará (Santarém, 1).

**\**Turdus leucomelas ephippialis* Sclater.<sup>2</sup> GRAY-HEADED THRUSH.**

*Turdus ephippialis* Sclater, Proc. Zool. Soc. Lond., 1862, p. 109—Bogotá, Colombia (type in British Museum); idem, Cat. Coll. Amer. Bds., p. 358, 1862—Bogotá.

*Turdus poiteaui*(i) Bonaparte, Compt. Rend. Acad. Sci. Paris, 38, p. 4, 1854; idem, Not. Orn. Coll. Delattre, p. 28, 1854—part (spec. prim. s.n. *Planesticus amaurochalinus*); Pucheran, Arch. Mus. Hist. Nat. Paris, 7, p. 377,

<sup>1</sup> **Additional material examined.**—Pará: Rio Muriá, 1; Pará, 2.—Maranhão: Miritiba, 5.—Piahy: Pedrinha, 1; Piranha, 1; Lake Parnaguá, 1; below Queimadas, Rio Parnahyba, 1.—Bahia: 7.

<sup>2</sup> *Turdus leucomelas ephippialis* Sclater: Very close to *T. l. albiventer*, but breast and sides grayish with very little, if any, brownish tone, and pileum purer mouse gray, not tinged with brownish anteriorly. These differences, while noticeable in series of freshly molted birds, are hardly apparent, when worn examples of *T. l. albiventer* are compared. I am unable to discern any constant variation between specimens from the Rio Branco, the Orinoco Valley, and the Guianan lowlands on one side and those from Colombia and the Venezuelan coast on the other. Birds from Roraima incline to larger size, but do not seem to differ in coloration. Todd (Proc. Biol. Soc. Wash., 44, p. 52, 1931), basing his conclusions on large series, rejects *ephippialis* as inseparable from *albiventer*.

**Material examined.**—Colombia: Bogotá, 9; Bucaramanga, 1; La Concepción, Santa Marta, 2; San Miguel, Santa Marta, 1.—Venezuela: Caracas region (Caracas, Macuto, Rio Maméra), 4; Maracay, Aragua, 7; hinterland of Cumaná (San Antonio, etc.), 10; Carúpano, Paria Peninsula, 1; Orinoco Valley (Ciudad Bolívar, Altigracia, Caicara), 12.—British Guiana: Roraima, 5; Quonga, 1; Annai, 1; Rio Rupununi, 1; Georgetown, 2.—French Guiana: Cayenne, 5.—Brazil: Forte do São Joaquim, Rio Branco, 6; Serra da Lua, near Bôa Vista, Rio Branco, 2.

1855—Cayenne, part (spec. sec. s. n. *T. amaurochalinus*); idem, Rev. Mag. Zool., (2), 10, p. 464, 1858—Cayenne.<sup>1</sup>

*Turdus albiventer* (not of Spix) Cabanis, in Schomburgk, Reisen Brit. Guiana, 3, p. 666, "1848"—part, Venezuela and Cayenne (crit., diag., excl. ref. Spix, pl. 69, fig. 1); Pelzel, Orn. Bras., 2, p. 93, 1868—part, Forte do Rio Branco, Brazil (spec. in Vienna Museum examined); Seebohm, Cat. Bds. Brit. Mus., 5, p. 216, 1881—part, Colombia, Venezuela, Guiana; Goeldi, Ibis, 1897, pp. 153, 161—Counany and Amapá, northern Pará; Sharpe, in Seebohm, Monog. Turd., 1, p. 257, 1898—part, Guiana, Rio Branco, and Colombia; Berlepsch and Hartert, Nov. Zool., 9, p. 2, 1902—Caicara, Altagracia, and Ciudad Bolivar, Orinoco, Venezuela; Hellmayr, Journ. Orn., 50, p. 61, 1902—part, Rio Branco, Colombia (Bogotá, Bucaramanga), and Venezuela (Rio Maméra, Caracas); Berlepsch, Nov. Zool., 15, p. 104, 1908—Cayenne, Isle le Père, and Roche-Marie, French Guiana; Penard and Penard, Vog. Guyana, 2, p. 545, 1910—Dutch Guiana (eggs descr.).

*Turdus albiventris* Sclater and Salvin, Exot. Orn., p. 147, 1869—part, Venezuela (Cumaná), Colombia (Bogotá), and British Guiana; idem, Proc. Zool. Soc. Lond., 1870, pp. 780, 783—Mérida, Venezuela; Wyatt, Ibis, 1871, p. 320—between Ocaña and La Cruz, and Cocuta Valley, not far from Bucaramanga, Santander, Colombia; Berlepsch, Journ. Orn., 32, p. 278, 1884—Bucaramanga; Salvin, Ibis, 1885, p. 198—Roraima, British Guiana; Snethlage, Bol. Mus. Goeldi, 8, p. 496, 1914—part, Amapá, Monte Alegre, and Rio Jamundá (Faro).

*Turdus albiventer albiventer* Bangs and Penard, Bull. Mus. Comp. Zool., 62, p. 81, 1918—Paramaribo, Surinam.

*Merula albiventris* Phelps, Auk, 14, p. 363, 1897—San Antonio, Sucre, Venezuela.

*Planesticus albiventer* Beebe, Trop. Wild Life, 1, p. 135, 1907—Bartica, British Guiana; Cherrie, Sci. Bull., Mus. Brookl. Inst., 2, p. 137, 1916—Orinoco region, from Las Barrancas upwards to the mouth of the Rio Vichada, Venezuela (habits); Chubb, Bds. Brit. Guiana, 2, p. 382, 1921—upper Takutu Mountains, Ituribisci, Bartica, Abary River, Demerara, Georgetown, and Annai, British Guiana.

*Merula albiventris fusa* Bangs, Proc. Biol. Soc. Wash., 13, p. 107, 1899—Chirua (type), La Concepción, San Miguel, and San Francisco, Santa Marta region, Colombia (type now in Museum of Comparative Zoology, Cambridge, Mass.); Allen, Bull. Amer. Mus. N. H., 13, p. 182, 1900—Valparaiso and Bonda, Santa Marta; idem, l.c., 21, p. 294, 1905—Bonda (nest and eggs descr.); Hellmayr, Journ. Orn., 50, p. 62, 1902—Santa Marta (crit.).

<sup>1</sup> Bonaparte, who duly recognized that the two specimens in the Paris Museum marked "*T. poiteaui* Lesson"—a pure nomen nudum in the "Traité d'Orn." p. 409—belonged to two different species, virtually restricted that name by describing one of the examples, whereas the second is merely stated to be "*T. amaurochalinus*." *T. poiteaui* Bonaparte thus becomes a synonym of *T. phaeopygus*, and Pucheran's subsequent attempt (in 1858) to transfer the name to the other species is inadmissible. We have examined the two individuals in the Paris Museum. The one described by Bonaparte (Cayenne, M. Poiteau, 1822) is indeed *T. phaeopygus*, but the other specimen believed by Bonaparte and Pucheran to be *T. amaurochalinus* turned out to be referable to *T. a. ephippialis*.



*Merula incompta* (not of Bangs) Bangs, Proc. Biol. Soc. Wash., 12, p. 182, 1898—Palomina, Santa Marta.

*Planesticus albiventer ephippialis* Chapman, Bull. Amer. Mus. N. H., 36, p. 536, 1917—Honda and Chicoral, Magdalena Valley, Colombia.

*Turdus albiventer ephippialis* Todd and Carriker, Ann. Carnegie Mus., 14, p. 396, 1922—Bonda, Mamatoco, Pueblo Viejo, and Loma Larga, Santa Marta region (crit.); Bangs, Bull. Mus. Comp. Zool., 70, p. 329, 1930—Chirua (note on type).

*Turdus leucomelas ephippialis* Chapman, Bull. Amer. Mus. N. H., 63, p. 111, 1931—Arabupu, Roraima (crit.).

**Range.**—Eastern Colombia (Magdalena Valley; eastern Andes; Santa Marta region); Venezuela; British, Dutch, and French Guiana; northern Brazil, south to the north bank of the lower Amazon.

14: Venezuela (Caracas, 1; Macuto, Caracas, 2; Maracay, Aragua, 7); British Guiana (Georgetown, 2); Brazil (Serra da Lua, near Boa Vista, Rio Branco, 2).

**\**Turdus rufiventris rufiventris* Vieillot. RUFIOUS-BELLIED THRUSH.**

*Turdus rufiventris* Vieillot, Nouv. Dict. Hist. Nat., nouv. éd., 20, p. 226, 1818—Brazil; idem, Tabl. Enc. Méth., Orn., 2, livr. 91, p. 639, 1822—Brazil (type in coll. of P. L. Vieillot);<sup>1</sup> Wied, Reise Bras., 1, p. 63 [8vo ed., p. 62], 1820—Lagôa do Ponta Negra, Prov. Rio de Janeiro; idem, l.c., p. 278 [8vo ed., p. 275], 1820—Caravellas, southern Bahia; idem, Beitr. Naturg. Bras., 3, (2), p. 639, 1831—southeastern Brazil (habits); d'Orbigny, Voy. Amér. Mérid., Ois., p. 203, 1838—part ("male"), from Buenos Aires to Santa Cruz de la Sierra, Bolivia; Burmeister, Reise Bras., p. 164, 1853—Nova Friburgo; idem, Syst. Uebers. Th. Bras., 3, p. 122, 1856—southeastern Brazil (habits); Sclater, Proc. Zool. Soc. Lond., 27, p. 332, 1859 (monog.); Burmeister, Journ. Orn., 8, p. 252, 1860—Banda Oriental and Paraná; idem, Reise La Plata St., 2, p. 474, 1861—Paraná (eggs descr.); Euler, Journ. Orn., 15, p. 403, 1867—Cantagallo (nesting habits); Sclater and Salvin, Proc. Zool. Soc. Lond., 1868, p. 138—Conchitas, Buenos Aires; Pelzeln, Orn. Bras., 2, p. 94, 1868—Rio de Janeiro (Rio, Sapitiva, Registro do Sai), São Paulo (Mattodentro, Ypanema), Paraná (Curytiba, Castro), Goyaz, and Matto Grosso (Cuyabá); idem, Nunq. Otios., 2, p. 291, 1872—Nova Friburgo; Burton, Expl. Highl. Brazil, 1, p. 56, 1869—north of Juiz de Fora, Minas Geraes; Reinhardt, Vidensk. Medd. Naturhist. Foren., 1870, p. 453—Minas Geraes; Berlepsch, Journ. Orn., 21, p. 228, 1873—Blumenau, Santa Catharina; Cabanis, l.c., 22, p. 82, 1874—Cantagallo, Rio; Doering, Periód. Zool. Arg., 1, p. 253, 1874—Rio Guayquiraro, Corrientes; Durnford, Ibis, 1877, p. 167—Baradero, Buenos Aires; White, Proc. Zool. Soc. Lond., 1882, p. 592—Orán, Salta; Barrows, Bull. Nutt. Orn. Cl., 8, p. 85, 1883—Concepción del Uruguay, Entre Rios; Berlepsch and Ihering, Zeits. Ges. Orn., 2, p. 111, 1885—Taquara and Linha Pirajá, Rio Grande do Sul; Gibson, Ibis, 1885, p. 277—Canguê River, below

<sup>1</sup> Rio de Janeiro has been suggested as type locality by Brabourne and Chubb (Bds. S. Amer., 1, p. 344, 1912).

- Paysandú, Uruguay; Withington, *Ibis*, 1888, p. 462—Lomas de Zamora, Buenos Aires; Stempelmann and Schulz, *Bol. Acad. Nac. Ci. Córdoba*, **10**, p. 397, 1890—Córdoba; Frenzel, *Journ. Orn.*, **39**, p. 117, 1891—Córdoba; Boucard and Berlepsch, *The Humming Bird*, **2**, p. 42, 1892—Porto Real, Rio; Kerr, *Ibis*, 1892, p. 122—Fortín Donovan, lower Pilcomayo; Aplin, *Ibis*, 1894, p. 161—Rio Negro and Arroyo Grande, Uruguay; Salvadori, *Boll. Mus. Zool. Torino*, **10**, No. 208, p. 2, 1895—Paraguari and Concepción, Paraguay; idem, *l.c.*, **12**, No. 292, p. 3, 1897—Campo Santo, Salta, and San Lorenzo, Jujuy; idem, *l.c.*, **15**, No. 378, p. 2, 1900—Urucúm, Matto Grosso; Ihering, *Ann. Est. Rio Grande do Sul*, **16**, p. 116, 1899—Mundo Novo, São Lourenço, and Pedras Brancas, Rio Grande do Sul; idem, *Rev. Mus. Paul.*, **3**, p. 126, 1899—Itatiba and Cachoeira, São Paulo; Euler, *l.c.*, **4**, p. 9, 1900 (breeding habits); Ihering, *l.c.*, p. 152, 1900—Cantagallo and Nova Friburgo; Kerr, *Ibis*, 1901, p. 222—Paraguayan Chaco; Lillo, *Anal. Mus. Nac. Hist. Nat. Buenos Aires*, **8**, p. 171, 1902—Tucumán; Baer, *Ornis*, **12**, p. 213, 1904—Santa Ana, Tapia, and Criolla, Tucumán; Miranda-Ribeiro, *Arch. Mus. Nac. Rio de Janeiro*, **13**, p. 185, 1906—Retiro do Ramos, Itatiaya; Ihering and Ihering, *Cat. Faun. Braz.*, **1**, p. 319, 1907—São Paulo (Itatiba, Cachoeira, Franca, São José de Rio Pardo, Baurú, Ypiranga) and Minas Geraes (Itatiaya and Vargem Alegre); Lüderwaldt, *Zool. Jahrb. (Syst.)*, **27**, p. 354, 1909—Itatiaya; Hartert and Venturi, *Nov. Zool.*, **16**, p. 161, 1909—Barracas al Sud (Buenos Aires), La Soledad (Entre Ríos), Concepción (Misiones), and Tucumán (habits, eggs); Chrostowski, *C. R. Soc. Scient. Varsovie*, **5**, pp. 485, 499, 1912—Vera Guarany, Paraná; Grant, *Ibis*, 1911, p. 82—Buenos Aires (Los Ynglases, Ajó), Chaco (Riacho Ancho), Formosa (Arjerichi), Entre Ríos (Santa Elena), and Paraguay (Sapatero Cué and Villa Franca); Bertoni, *Faun. Parag.*, p. 59, 1914—Alto Paraná, Paraguay; Gibson, *Ibis*, 1918, p. 374—Cape San Antonio, Buenos Aires (habits); Lima, *Rev. Mus. Paul.*, **12**, (2), p. 100, 1920—Belmonte to Ilhéos, southern Bahia; Velho, *Arch. Mus. Nac. Rio de Janeiro*, **24**, p. 264, 1923—Monte Serrat, Itatiaya.
- Turdus chochi* Vieillot, *Nouv. Dict. Hist. Nat.*, nouv. éd., **20**, p. 226, 1818—based on Azara, No. 79, Paraguay; Lafresnaye and d'Orbigny, *Syn. Av.*, **1**, in *Mag. Zool.*, **7**, cl. 2, p. 17, 1837—Paraguay and Bolivia (Prov. Santa Cruz).
- Turdus rufiventer* Spix, *Av. Bras.*, **1**, p. 70, pl. 68, 1824—Rio de Janeiro; Seebohm, *Cat. Bds. Brit. Mus.*, **5**, p. 222, 1881 (monog.); Sclater and Hudson, *Arg. Orn.*, **1**, p. 3, 1888—Argentina (habits); Sharpe, in Seebohm, *Monog. Turd.*, **1**, p. 291, pl. 64, 1899—part (monog., excl. northeastern Brazil).
- Merula rufiventris* Bruch, *Rev. Mus. La Plata*, **11**, p. 256, 1904—Orán, Salta; Lillo, *Rev. Letr. Cienc. Soc.*, **3**, p. 38, 1905—Tucumán; Chubb, *Ibis*, 1910, p. 610—Sapucay, Paraguay (habits); Ménégau, *Rev. Franç. d'Orn.*, No. 115, p. 333, 1918—Villa Lutetia, near San Ignacio, Misiones.
- Planesticus rufiventris* Dabbene, *Anal. Mus. Nac. Hist. Nat. Buenos Aires*, **18**, p. 358, 1910—Argentina; Hussey, *Auk*, **33**, p. 396, 1916—La Plata; Dabbene, *El Hornero*, **1**, p. 242, 1919—Isla Martín García; Tremoleras, *l.c.*, **2**, p. 21, 1920—Uruguay; Serié and Smyth, *l.c.*, **3**, p. 52, 1923—San

Isidro, Buenos Aires; Marelli, Mem. Min. Obr. Públ. for 1922-23, p. 653, 1924—Prov. Buenos Aires; Sztolcman, Ann. Zool., Mus. Pol. Hist. Nat., 5, p. 182, 1926—Guarapuava, Paraná.

*Planesticus rufiventris rufiventris* Hellmayr, Nov. Zool., 28, p. 238, 1921—Corrientes and Chiquitos, Bolivia; Holt, Bull. Amer. Mus. N. H., 57, p. 313, 1928—Monte Serrat, Itatiaya (habits); Laubmann, Wissens. Erg. Deuts. Gran Chaco Exp., Vögel, p. 321, 1930—Formosa (San José) and Bolivia (San José, La Crecencia, and Fortín Esteros); Naumburg, Bull. Amer. Mus. N. H., 60, p. 329, 1930—Paraguay (Fort Wheeler, Rio Negro) and Matto Grosso (Urucúm, Agua Blanca de Urucúm).

*Turdus rufiventris rufiventris* Wetmore, Bull. U. S. Nat. Mus., 133, p. 355, 1926—Paraguay (Puerto Pinasco, Villa Concepción), Argentine Chaco (Formosa, Las Palmas, Resistencia), Tucumán (Tafi Viejo), and Uruguay (habits); Friedmann, Bull. Mus. Comp. Zool., 68, p. 212, 1927—Concepción, Tucumán.

*Merula maranonica* (errore) Arribáizaga, Anal. Mus. Nac. Hist. Nat. Buenos Aires, 8, p. 151, 1902—Baradero, Prov. Buenos Aires (descr. juv.; = *P. rufiventris*, cf. Dabbene, Bol. Soc. Physis, 1, p. 244, 1913).

**Range.**—Southern half of Brazil, from southern Bahia, Minas Geraes, Goyaz, and Matto Grosso south to Rio Grande do Sul; Uruguay; Paraguay; northern Argentina, south to Cordoba and Buenos Aires provinces; eastern Bolivia.<sup>1</sup>

39: Brazil (Macaco Secco, near Andarahy, Bahia, 4; Rio das Velhas, near Lagôa Santa, Minas Geraes, 1; Therezopolis, Rio de Janeiro, 3; Piraputanga, Matto Grosso, 2; Joinville, Santa Catharina, 3); Uruguay (Maldonado, 1; Estancia El Corte, near San Carlos, 1; Rio Uruguay, southwest of Dolores, Soriano, 1; Arazati, Dept. San José, 2; Rio Cebollati, Minas, 1; north of San Vicente de Castillos, Rocha, 2); Argentina (Caragatatay, Misiones, 4; Eldorado, Misiones, 1; Puerto Segundo, Misiones, 3; Concepción, Tucumán, 10).

**\**Turdus rufiventris juensis* (Cory).<sup>2</sup> CEARÁ RUFOUS-BELLIED THRUSH.**

<sup>1</sup> Subdivision of typical *rufiventris* seems impracticable, the insignificant local divergencies being completely bridged over by individual and seasonal variation. Birds from eastern Bolivia are obviously inseparable from those of southern Brazil and Paraguay, while certain examples from southern Bahia, by slightly paler coloration, manifest a trend in the direction of *T. r. juensis*.

**Additional material examined.**—Paraguay: Villa Concepción, 2.—Brazil: Victoria, Espírito Santo, 4; Rio de Janeiro, 1; Registro do Sai, Rio, 1; Sapitiba, Rio, 1; Agua Suja, near Bagagem, Minas Geraes, 3; Cuyabá, Matto Grosso, 1; Bahia (trade-skins), 2; Ypanema, São Paulo, 6; Castro, Paraná, 1; Ararangua, Santa Catharina, 1; Blumenau, Santa Catharina, 1; Taquara do Mundo Novo, Rio Grande do Sul, 3; São Lourenço, Rio Grande do Sul, 1.—Argentina: Corrientes, 1; Buenos Aires, 2.—Bolivia: Samaipata, 1; Valle Grande, 1; Holguin, 1; Chiquitos, 1.

<sup>2</sup> *Turdus rufiventris juensis* (Cory): Differs from the typical race by somewhat paler, more grayish upper parts; more buffy, less grayish or brownish chest; and considerably lighter, ochraceous-tawny instead of deep tawny abdomen.

**Additional material examined.**—Bahia: Alagoinhas, near Bahia City, 2; Santa Rita, Rio Preto, 1; Barra Vermelho, Rio Preto, 1.

*Planesticus rufiventris juensis* Cory, Field Mus. Nat. Hist., Orn. Ser., 1, p. 344, 1916—Juá, near Iguatú, Ceará (type in Field Museum); Hellmayr, l.c., Zool. Ser., 12, p. 248, 1929—Maranhão (Codó, Cocos), Piauhy (Ibiapaba) and Ceará (Varzea Formosa, Quixada, and Juá, near Iguatú).

*Planesticus rufiventer juensis* Snethlage, Bol. Mus. Nac. Rio de Janeiro, 2, No. 6, p. 40, 1926—Ceará.

*Turdus rufiventris* (not of Vieillot) Forbes, Ibis, 1881, p. 327—Pernambuco.

*Turdus rufiventer* Sharpe, in Seebohm, Monog. Turd., 1, p. 291, pl. 64, 1899—part, Pernambuco and Bahia; Reiser, Denks. Math.-Naturw. Kl. Akad. Wiss. Wien, 76, p. 77, 1910—Alagoinhas, Barro Vermelho, and Santa Rita, Bahia (spec. in Vienna Museum examined).

*Turdus (Planesticus) rufiventer juensis* Reiser, Denks. Math.-Naturw. Kl. Akad. Wiss. Wien, 76, p. 168, 1925—Rio Preto (Bahia) and Cocal, Rio Parnahyba (Piauhy).

**Range.**—Northeastern Brazil, in states of Pernambuco, Ceará, Piauhy, Maranhão, and in the northern and western parts of Bahia.

13: Brazil (São Marcello, Rio Preto, Bahia, 1; Codó, Cocos, Maranhão, 1; Ibiapaba, Piauhy, 1; Varzea Formosa, Ceará, 1; Juá, near Iguatú, Ceará, 8; Quixada, Ceará, 1).

### ***Turdus fulviventris* Scater.<sup>1</sup> CHESTNUT-BELLIED OUZEL.**

*Turdus fulviventris* (Verreaux MS.) Scater, Proc. Zool. Soc. Lond., 25, p. 273, 1857—Bogotá, Colombia (type now in British Museum); idem, l.c., 27, p. 331, 1859—"interior of New Granada" (monog.); idem, Ibis, 1861, p. 277, pl. 8—Bogotá; idem, Cat. Coll. Amer. Bds., p. 4, 1862—Bogotá.

*Merula euryzona* (Du Bus MS.)<sup>2</sup> Scater and Salvin, Ibis, 1871, p. 320, note—new name for *Turdus fulviventris* Scater; Seebohm, Cat. Bds. Brit. Mus., 5, p. 266, 1881—Colombia and Ecuador; Sharpe, in Seebohm, Monog. Turd., 2, p. 109, pl. 113, 1900—Colombia (Bogotá, Pamplona) and Ecuador (Jima, San Lucas) (monog.).

*Turdus euryzonus* Wyatt, Ibis, 1871, pp. 120, 320—Alto, near Ocaña, Santander, Colombia; Taczanowski and Berlepsch, Proc. Zool. Soc. Lond.,

<sup>1</sup> A very distinct species with no near relative. The large and well-developed first primary, which is about half as long as the second, it shares with the Black Ouzel (*T. serranus* group) and the Giant Ouzel (*T. fuscater* group), but differs widely in coloration by its black head, dark olive gray breast, and rufous belly.

**Material examined.**—Venezuela, Cordillera of Mérida: Páramo de Rosas, Trujillo, 1; El Valle, Mérida, 3; Culata, Mérida, 2; Sierra Nevada, Mérida, 1.—Colombia: Bogotá, 5; near Pamplona, 1.—Ecuador: Machay, 1.

<sup>2</sup> Scater and Salvin adopt *Merula euryzona* from "Du Bus, Esq. Orn., pl. 34," which does not appear to have actually been issued, though a few sample copies without text may exist. Scater (Proc. Zool. Soc. Lond., 27, p. 375, 1859; l.c., 1864, p. 607) refers to plate 24 (*Granatellus venustus*) as being unpublished at the time, and in another place (Proc. Zool. Soc. Lond., 27, p. 357, 1858) says that plate 128 (*Prionirhynchus carinatus*) in the Proc. Zool. Soc. Lond., 25, 1857, was reduced from a plate "originally intended for publication" in the Esq. Orn. [as pl. 31] and sent him by Du Bus. Of Du Bus's work four parts only were evidently issued, each consisting of five plates with accompanying text, as follows: livr. 1, pls. 1-5, 1845; livr. 2, pls. 6-10, 1846; livr. 3, pls. 11-15, 1847; livr. 4, pls. 16-20, 1848.

1885, p. 70—Machay, Ecuador; Chapman, Bull. Amer. Mus. N. H., 55, p. 579, 1926—Loja, Zamora, upper Sumaco, above Archidona, below Oyacachi, and Baeza, Ecuador, and Chaupe, near Huancabamba, Peru.

*Range*.—Subtropical zone of western Venezuela (Cordillera of Mérida), Colombia (eastern Andes), eastern Ecuador, and extreme northern Peru (Chaupe, near Huancabamba, Dept. Piura).

**\**Turdus maranonicus* (Taczanowski).<sup>1</sup> MARAÑÓN THRUSH.**

*Turdus maranonicus* Taczanowski, Proc. Zool. Soc. Lond., 1880, p. 189, pl. 20—Callacate, northern Peru (type lost, formerly in Warsaw Museum<sup>2</sup>); Seeböhm, Cat. Bds. Brit. Mus., 5, p. 188, 1881—Marañón Valley, Peru; Taczanowski, Orn. Pér., 1, p. 488, 1884—Tambillo and Callacate, Peru; Salvin, Nov. Zool., 2, p. 2, 1895—Viña, Huamachuco, Peru; Sharpe, in Seeböhm, Monog. Turd., 1, p. 109, pl. 34, 1898—Callacate, Tambillo, and Viña, Huamachuco (monog.); Bangs and Noble, Auk, 35, p. 456, 1918—Tabaconas, Perico, Bellavista, Charapi, and Huancabamba, Peru.

*Turdus* sp.? Taczanowski, Proc. Zool. Soc. Lond., 1879, p. 221—Tambillo.

*Range*.—Northern Peru (valleys of the upper Marañón River and tributaries).

6: Peru (Balsas, 2; Hacienda Limón, ten miles west of Balsas, 4).

***Turdus olivater roraimae* Salvin and Godman.<sup>3</sup> RORAIMA OUZEL.**

*Turdus roraimae* Salvin and Godman, Ibis, (5), 2, p. 443, 1884—Roraima, British Guiana (type in British Museum); Salvin, Ibis, 1885, p. 198—Roraima; idem, Ibis, 1886, p. 500—Mount Twék-quay.

*Merula roraimae* Sharpe, in Seeböhm, Monog. Turd., 2, p. 107, pl. 112, 1900—Roraima (monog.).

*Planesticus roraimae* Chubb, Bds. Brit. Guiana, 2, p. 380, 1921—Roraima.

*Turdus roraimae roraimae* Chapman, Bull. Amer. Mus. N. H., 63, p. 112, 1931—Roraima.

*Range*.—Mountains of British Guiana (Roraima and Twék-quay).

<sup>1</sup> A very distinct species with no near relative, the spotted breast being unique among neotropical thrushes, while the proportionately very large, strong bill forms another striking character. The first primary is much longer, also decidedly broader than in the *T. albicollis-phaeopygus* group, and approaches *T. fulviventris*. In the adult plumage, the upper parts are uniform dark brown without any trace of spots to the wing coverts. In addition to our own series, I have examined several specimens from Viña, Huamachuco, collected by O. T. Baron.

<sup>2</sup> Cf. Stolzmann and Domaniewski, Ann. Zool. Mus. Pol. Hist. Nat., 6, p. 155, 1927.

<sup>3</sup> *Turdus olivater roraimae* Salvin and Godman: Nearest to *T. o. olivater*, but somewhat larger, with heavier bill; adult male with black color below restricted to the throat, passing gradually through the deep olive of the foreneck into the brighter isabella color of the posterior under parts. Wing (adult males), 118–125; tail, 98–108; bill, 24–25. We are not acquainted with the female.

*Material examined*.—British Guiana: Roraima, 8.

**Turdus olivater duidae** Chapman.<sup>1</sup> DUIDA OUZEL.

*Turdus roraimae duidae* Chapman, Amer. Mus. Nov., 380, p. 23, 1929—Mount Duida, Venezuela (type in the American Museum of Natural History, New York); idem, Bull. Amer. Mus. N. H., 63, p. 113, 1931—Duida.

*Range*.—Mount Duida, southern Venezuela.

**\*Turdus olivater olivater** (Lafresnaye). OLIVE-BACKED OUZEL.

*Merula olivatra* Lafresnaye, Rev. Zool., 11, p. 2, 1848—Caracas, Venezuela (type now in Museum of Comparative Zoology, Cambridge, Mass.); Seebohm, Cat. Bds. Brit. Mus., 5, p. 272, 1881—between La Guayra and Caracas, Venezuela; Sharpe, in Seebohm, Monog. Turd., 2, p. 105, pl. 111, 1900—Caracas and "Valencia" [=Cumbre de Valencia], Venezuela (monog.); Bangs, Bull. Mus. Comp. Zool., 70, p. 327, 1930—Caracas (note on type).

*Turdus olivater* Sclater, Proc. Zool. Soc. Lond., 27, p. 333, 1859—between La Guayra and Caracas, Venezuela (monog.); Sclater and Salvin, l.c., 1873, p. 511—Caracas; Hellmayr and Seilern, Arch. Naturg., 78, A, Heft 5, p. 36, 1912—Cumbre de Valencia, Venezuela (crit.).

*Planesticus olivater olivater* Hellmayr, Arch. Naturg., 90, A, Heft 2, p. 142, 1924—Galipán, Cerro del Avila, and Rio Maméra, near Caracas, Venezuela (crit.).

*Range*.—Subtropical zone of the north coast mountains of Venezuela, in Federal District (Caracas; Rio Maméra; Galipán, Cerro del Avila) and in states of Carabobo (Cumbre de Valencia) and Aragua (Maracay).<sup>2</sup>

2: Venezuela (Maracay, Aragua, 2).

**\*Turdus olivater sanctae-martae** (Todd).<sup>3</sup> SANTA MARTA OUZEL.

*Planesticus olivater sanctae-martae* Todd, Proc. Biol. Soc. Wash., 26, p. 170, 1913—Cincinnati, Santa Marta, Colombia (type in Carnegie Museum examined).

<sup>1</sup> *Turdus olivater duidae* Chapman: Apparently distinguishable from *T. o. roraimae* by slightly larger size. Wing (males), 125–133; tail, 102–110; bill, 25–26 (Chapman, l.c.).

<sup>2</sup> *Material examined*.—Federal District: Rio Maméra, near Caracas, 1; Galipán, Cerro del Avila, 14.—Aragua: Maracay, 2.—Carabobo: Cumbre de Valencia, 7.

<sup>3</sup> *Turdus olivater sanctae-martae* (Todd): Very close to *T. o. olivater*, but on average larger, with decidedly larger bill; black gorget in adult males less sharply defined, the feathers along its lower (pectoral) margin being laterally edged with olive brownish. The other supposed characters are completely bridged by individual variation. Wing (six adult males) 119, 119, 120, 120, 121, 121; (eight adult females) 112, 113, 116, 116, 117, 120, 120, 122; tail, 100–104, (female) 90–101; bill, 23–25. Typical *T. o. olivater* affords the following measurements: wing, (eleven adult males) 113–118, once each 119, 120; (five females) 110–115; tail, 90–98, once 104; (females) 85–91; bill, 21–23.

*Material examined*.—Santa Marta: Cincinnati, 8; Valparaíso, 3; La Cumbre, 1; Chirua, 3; Las Vegas, 3; San Miguel, 1.

*Merula olivatra* (not of Lafresnaye) Bangs, Proc. Biol. Soc. Wash., 13, p. 107, 1900—La Concepción, Santa Marta; Allen, Bull. Amer. Mus. N. H., 13, p. 181, 1900—Valparaiso and Las Nubes, Santa Marta (descr. female).

*Turdus olivater sanctae martaë* Todd and Carriker, Ann. Carnegie Mus., 14, p. 400, 1922—Valparaiso, Cincinnati, Sierra Nevada de Santa Marta, Las Vegas, San Miguel, and heights of Chirua (crit., nest and eggs).

**Range.**—Santa Marta region in northern Colombia (alt. 4,000–7,000 ft.).

1: Colombia (La Cumbre, Santa Marta, 1).

***Turdus olivater caucæ* (Chapman).<sup>1</sup> CAUCA OUZEL.**

*Planesticus caucæ* Chapman, Bull. Amer. Mus. N. H., 33, p. 182, 1914—La Sierra, central Andes, Cauca, Colombia (type in the American Museum of Natural History, New York); idem, l.c., 36, p. 539, 1917—La Sierra.

**Range.**—Only known from La Sierra (alt. 6,300 ft.), south of Popayán, in the central Andes of southern Colombia.

**\**Turdus reevei* Lawrence.<sup>2</sup> REEVE'S THRUSH.**

*Turdus reevei* Lawrence, Ann. Lyc. Nat. Hist. N. Y., 9, p. 234, 1870—Puna Island, Ecuador (type in U. S. National Museum); Taczanowski, Orn. Pér., 1, p. 490, 1884—Lechugal, Dept. Tumbes, Peru; Bangs and Noble, Auk, 35, p. 456, 1918—Huancabamba, Dept. Piura, Peru; Chapman, Bull. Amer. Mus. N. H., 55, p. 578, 1926—Chone, Daule, Portovelo, Salvias, Casanga, San Bartolo, Lunamá, Alamor, Celica, Las Piñas, Cebollal, and Guainche, Ecuador, and Palambla, Milagros, and Paletillas, Peru.

*Merula reevei* Seebohm, Cat. Bds. Brit. Mus., 5, p. 254, 1881—Puna Island; Sharpe, in Seebohm, Monog. Turd., 2, p. 145, pl. 129, 1901—Puna Island.

*Cossyphopsis reevei* Stejneger, Proc. U. S. Nat. Mus., 5, p. 478, 1883 (crit.).

*Turdus maculirostris* (not of Berlepsch and Taczanowski) Bangs and Noble, Auk, 35, p. 456, 1918—Huancabamba, Dept. Piura, Peru (=juv.; spec. examined).

<sup>1</sup>*Turdus olivater caucæ* (Chapman): Agreeing in size and large bill with *T. o. sanctæ martaë*, but throat of adult male dingy grayish streaked with black, and foreneck plain light grayish olive like the chest; female similar to that of *T. o. sanctæ martaë*, but bill bright yellow instead of dusky brown. Wing, (adult male) 123, (female) 119; tail, 99, 96; bill, 25, 24.

**Material examined.**—Colombia: La Sierra, 2.

<sup>2</sup>*Turdus reevei* Lawrence is a rather isolated species, perhaps more nearly related to *T. nigriceps* than any other thrush. In structural characters, notably in shape and length of the spurious primary, it closely resembles *T. nudigenis* and allies, and I do not see any divergency in the form of the tail that would justify the retention of the genus *Cossyphopsis*. The similarity of the sexes is unlike *T. nigriceps*, and its coloration (upper parts including wings and tail slate gray, passing into mouse gray on forehead and sides of the head; chin and jugular spot plain white, throat streaked with dusky; chest smoke gray, middle of abdomen white, sides and flanks olive buffy) is unique among neotropical thrushes.

*Range*.—Arid Tropical zone of western Ecuador, south of the Chone River, and northwestern Peru, in depts. of Tumbes (Lechugal) and Piura (Milagros, Paletillas, Palambla, Huancabamba).

2: Ecuador (San Bartolo, Alamor Range, Prov. Loja, 1; Alamor, Loja, 1).

**\**Turdus nigriceps* Cabanis. BLACK-HEADED THRUSH.**

*Turdus nigriceps* (Jelski MS.) Cabanis, Journ. Orn., 22, p. 97, 1874—Peru (type in Warsaw Museum; descr. of male); Taczanowski, Proc. Zool. Soc. Lond., 1874, p. 503, pl. 64—type stated to be from the hacienda Soriano, between the Chanchamayo and Aynamayo rivers, Dept. Junín, Peru; Cabanis, Journ. Orn., 26, p. 195, 1878—Sierra de Cordoba, Argentina; Taczanowski, Proc. Zool. Soc. Lond., 1882, p. 4—Chirimoto, Peru; idem, Orn. Pér., 1, p. 489, 1884—Soriano and Chirimoto, Peru; Sclater and Hudson, Arg. Orn., 1, p. 4, 1888—Sierra de Cordoba; Frenzel, Journ. Orn., 39, p. 118, 1891—Sierra de Cordoba; Salvadori, Boll. Mus. Zool. Torino, 10, No. 208, p. 2, 1895—San Pablo, Tucumán; Berlepsch and Stolzmann, Proc. Zool. Soc. Lond., 1896, p. 325—La Gloria (Chanchamayo) and Garita del Sol (Vitoc), Dept. Junín, Peru (descr. of young female); Hartert and Venturi, Nov. Zool., 16, p. 162, 1909—La Hoyada and Tafi Viejo, Tucumán; Stolzmann and Domaniewski, Ann. Zool. Mus. Pol. Hist. Nat., 6, p. 155, 1927—Soriano (type in Warsaw Museum).

*Merula nigriceps* Seebohm, Cat. Bds. Brit. Mus., 5, p. 254, 1881—from the mountains of Ecuador to the Sierra de Cordoba; Stempelmann and Schulz, Bol. Ac. Nac. Ci. Cordoba, 10, p. 397, 1890—Cordoba; Sharpe, in Seebohm, Monog. Turd., 2, p. 155, pl. 132, 1901—Peru (Soriano, Chirimoto), Ecuador (Monji), Bolivia (Sierra de Santa Cruz), and Sierra de Cordoba (monog.); Baer, Ornith., 12, p. 213, 1904—Lagunita, Tucumán; Lillo, Anal. Mus. Nac. Hist. Nat. Buenos Aires, 8, p. 171, 1902—Tafi Viejo and Cumbre de la Hoyada, Tucumán; idem, Rev. Letr. Ci. Soc., 3, p. 39, 1905—same localities.

*Planesticus nigriceps* Dabbene, Anal. Mus. Nac. Hist. Nat. Buenos Aires, 18, p. 361, 1910—Tucumán and Cordoba; Dinelli, El Hornero, 1, p. 57, 1918—Tucumán (habits, nest, and eggs).

*Range*.—Subtropical zone of southeastern Ecuador (Monji), eastern Peru (Chirimoto, Huayabamba Valley, Dept. San Martín; Soriano, La Gloria, and Garita del Sol, Dept. Junín), eastern Bolivia (Bueyes, near Santa Cruz de la Sierra), and western Argentina (San Francisco, Prov. Jujuy; San Pablo, Tafi Viejo, La Hoyada, Lagunita, and Concepción, Prov. Tucumán; Sierra de Cordoba).<sup>1</sup>

8: Argentina (Concepción, Tucumán, 8).

<sup>1</sup> No material seen from Cordoba. Birds from northwestern Argentina and Bolivia agree well together, and the only Peruvian bird examined—a male in first annual plumage—does not seem to differ.

*Material examined*.—Peru: Garita del Sol, Vitoc, Dept. Junín, 1.—Bolivia: Bueyes, Dept. Santa Cruz de la Sierra, 12.—Argentina: San Francisco, Cerro de Calilegua, Jujuy, 2; Tucumán, 1; La Hoyada, Tucumán, 1; Concepción, Tucumán, 8.



**Turdus subalaris** (Seebohm).<sup>1</sup> BEHN'S THRUSH.

*Merula subalaris* (Leverkühn MS.) Seebohm, Proc. Zool. Soc. Lond., 1887, p. 557—"Jutubá, presumably in the valley of the Rio Grande, Province of São Paulo, Brazil"—Jatubá, western Goyaz (type, now in Berlin Museum, examined;=adult male); Leverkühn, Journ. Orn., 37, p. 103, 1889; Berlepsch and Leverkühn, Orn., 6, p. 5, 1890—Jatubá, Goyaz (note on type locality); Sharpe, in Seebohm, Monog. Turd., 2, p. 157, pl. 133, 1902—"Jutubá, southern Brazil."

*Turdus metallophonus* Bertoni, Anal. Cient. Parag., 1, No. 1, p. 147, Jan., 1901—Alto Paraná (type in coll. of A. de W. Bertoni; descr. of female); Dabbene, Anal. Mus. Nac. Hist. Nat. Buenos Aires, 23, p. 344, 1912 (crit.).

*Turdus subalaris* Ihering and Ihering, Cat. Faun. Braz., 1, p. 320, 1907—Goyaz and Matto Grosso; Bertoni, Anal. Soc. Cient. Arg., 75, p. 96, 1913—Misiones; idem, Faun. Parag., p. 59, 1914—Alto Paraná, Paraguay (crit.).

*Merula crotopeza* (not *Turdus crotopezus* Lichtenstein) Bertoni, Seg. Contr. Orn. Parag., in Rev. Inst. Parag., 1907, p. — [Sep., p. 1]—Puerto Bertoni, Paraguay, and Iguassú, Paraná, Brazil (spec. examined).

*Planesticus crotopezus* Dabbene, Anal. Mus. Nac. Hist. Nat. Buenos Aires, 18, p. 435, 1910—Santa Ana, Misiones (crit., range); idem, Bol. Soc. Physis, 1, p. 244, 1913 (crit.;= *P. subalaris*).

*Turdus phaeopygus* (not of Cabanis) Bertoni, Anal. Soc. Cient. Arg., 75, p. 95, 1913—Misiones.

*Planesticus subalaris* Sztolcman, Ann. Zool. Mus. Pol. Hist. Nat., 5, p. 183, 1926—Marechal Mallet, Invernadinha, Cará Pintada, and Vermelho, Paraná (descr. of male); Naumburg, Bull. Amer. Mus. N. H., 60, p. 332, 1930—Jatubá, Goyaz, and Serra da Chapada, Matto Grosso (range).

**Range.**—Southern Brazil, in states of Goyaz (Jatubá), Matto Grosso (Serra da Chapada), and Paraná (Marechal Mallet, Invernadinha, Cará Pintada, Vermelho), and adjoining districts of Argentina (Santa Ana and Rio Iguassú, Misiones) and Paraguay (Puerto Bertoni, Alto Paraná).

<sup>1</sup> *Turdus subalaris* (Seebohm): Adult male nearest to *T. nigriceps*, but upper parts much paler, light neutral gray instead of deep neutral gray, often with an olivaceous wash; top and sides of the head gray like the back instead of black, only the front and anterior part of the crown as far back as the eyes with blackish centers to the feathers; wings and tail dusky rather than black with lighter gray edges; black streaking of throat much narrower; a distinct immaculate white spot on the foreneck; chest and sides much paler gray; white abdominal area much more extensive; axillaries and under wing coverts white instead of neutral gray. Wing (three adult males), 108, 112, 113; tail, 83, 87, 90; bill, 17, 17, 18.

This is the bird first described as *T. metallophonus* and later consecutively identified as *Merula crotopeza* and *Turdus phaeopygus* by Bertoni. A marked specimen (Museu Paulista, No. 7064. Puerto Bertoni, Sept. 15, 1906), received from Bertoni and forwarded to my inspection by the late H. von Ihering, proved to be identical with the type of *M. subalaris*.

**Material examined.**—Brazil: Jatubá, Goyaz, male adult, Sept. 7, 1847. Professor Behn (type of the species); Serra da Chapada, Matto Grosso, male adult, July 13, 1902. A. Robert (British Museum).—Paraguay: Puerto Bertoni, 1.

***Turdus serranus serranus* Tschudi.<sup>1</sup> TSCHUDI'S BLACK OUZEL.**

*Turdus serranus* Tschudi, Arch. Naturg., 10, (1), p. 280, 1844—Peru (descr. of juv.); idem, Faun. Peru., Aves, p. 186, 1846—Sierra region (alt. 9,000–14,000 ft.), Peru (type in Neuchâtel Museum); Sclater, Proc. Zool. Soc. Lond., 27, p. 330, 1859—Peru (diag. ex Tschudi); Sclater and Salvin, Nomencl. Av. Neotrop., p. 2, 1873—part, Peru; Sclater, Proc. Zool. Soc. Lond., 1873, p. 780—Huasampilla, Dept. Cuzco, Peru; Taczanowski, l.c., 1874, p. 504—Chilpes, Peru; idem, l.c., 1879, p. 221—Tambillo, Peru; Sclater and Salvin, l.c., 1879, p. 591—Tilotilo, Bolivia; Taczanowski, l.c., 1882, p. 4—Tamiapampa, Peru; Berlepsch and Stolzmann, l.c., 1896, p. 327—Maraynioc, Dept. Junín, Peru; idem, Ornith., 13, p. 73, 1906—Idma, Urubamba Valley, Peru; Ménégau, Rev. Franç. d'Orn., 2, p. 8, 1911—Cumpang, northeast of Tayabamba, Peru.

*Merula serrana* Seebohm, Cat. Bds. Brit. Mus., 5, p. 239, 1881—part, Peru and Bolivia; Taczanowski, Orn. Pér., 1, p. 496, 1884—Chilpes, Tambillo, Tamiapampa, Huancayo, and Huanta, Peru (monog.); Sharpe, in Seebohm, Monog. Turd., 2, p. 41, 1900—part, Peru and Bolivia.

*Planesticus serranus* Chapman, Bull. U. S. Nat. Mus., 117, p. 104, 1921—Torontoy, Peru.

**Range.**—Subtropical zone of Peru and Bolivia (depts. of La Paz and Cochabamba).

***Turdus serranus fuscobrunneus* (Chapman).<sup>2</sup> CHAPMAN'S BLACK OUZEL.**

*Planesticus fuscobrunneus* Chapman, Bull. Amer. Mus. N. H., 31, p. 158, 1912—Cerro Munchique, west of Popayán, western Andes, Cauca, Colombia (type in the American Museum of Natural History, New York); idem,

<sup>1</sup> *Turdus serranus serranus* Tschudi is characterized among its affines by large size with proportionately small, slender bill, and the strongly rufescent coloration of the female, particularly underneath. The axillaries and under wing coverts are much darker, rufescent brown edged with orange. Wing, (adult males) 125, 129, 129, 131, 132, 134, 135, 135, (adult females) 124, 124, 128; tail, (males) 114, 115, 117, 118, 123, 124, 125, 128, (females) 113, 114, 118; bill, 21–23, twice 24.

Measurements have been taken from Bolivian specimens, with which two from Peru—a male from Cumpang, a female from Idma—appear to agree. While this form is generally larger than any of the allied races, the smallest individuals cannot be distinguished in size from the largest examples of *fuscobrunneus* and *atro-sericeus*.

**Material examined.**—Peru: Cumpang, 1; Idma, Urubamba, 1.—Bolivia: San Cristobal, 1; Pucyuni, 1; San Antonio, 1; Cocapata, 1; Tanampaya, 2; Cillutincara, 1; Sandillani, 4; Samaipata, 1.

<sup>2</sup> *Turdus serranus fuscobrunneus* (Chapman): Agreeing in small, slender bill with *T. s. serranus*, but wings and tail shorter; female less rufescent, more of an olivaceous clove-brown, slightly duller below. Wing of adult males: 120, 125 (western Andes of Colombia), 120, 123, 125 (Bogotá), 125 (western Ecuador); of adult females: 122, 122 (Cauca), 117 (Cayandeled, Ecuador); tail, 104–118; bill, 20–23, once 24.

This race is exactly intermediate between *serranus* and *atro-sericeus*, combining, as it does, the small bill of the former with the other proportions of the latter. The female comes pretty close to *serranus*, but appears to be less rufescent and more olivaceous throughout, although one from Ecuador (the only one we have seen from that country) is hardly distinguishable. In the absence of adequate series

l.c., 36, p. 533, 1917—San Antonio, Cerro Munchique, La Florida, western Andes, and Santa Elena, eastern Andes, Colombia.

*Turdus atroserriceus* (not of Lafresnaye) Sclater, Proc. Zool. Soc. Lond., 27, p. 136, 1859—Pallatanga, Ecuador; idem, l.c., p. 333, 1859—part, New Grenada and Ecuador (Pallatanga); idem, l.c., 28, p. 83, 1860—above Puellaro, Ecuador; idem, Cat. Coll. Amer. Bds., p. 5, 1862—part, spec. c-e, Pallatanga and Puellaro.

*Semimerula atroserricea* Heine and Reichenow, Nomencl. Mus. Hein., p. 4, 1891—Bogotá.

*Turdus serranus* (not of Tschudi) Sclater and Salvin, Nomencl. Av. Neotrop., p. 2, 1873—part, Ecuador and Colombia; idem, Proc. Zool. Soc. Lond., 1879, p. 491—Jerico and Frontino, western Andes, Antioquia, Colombia; Salvin, Cat. Strickl. Coll., p. 5, 1882—Bogotá; Berlepsch and Taczanowski, Proc. Zool. Soc. Lond., 1884, p. 283—Cayandedel and Chaguarpata, Ecuador; idem, l.c., 1885, p. 70—Machay and Mapoto, Ecuador; Berlioz, Bull. Mus. Hist. Nat. Paris, 34, p. 73, 1928—Pilon and Aluguincho, Ecuador.

*Merula serrana* Seebohm, Cat. Bds. Brit. Mus., 5, p. 239, 1881—part, Colombia and Ecuador; Sharpe, in Seebohm, Monog. Turd., 2, p. 41, pl. 87, 1900—part, Colombia and Ecuador; Ménégau, Miss. Serv. Géogr. Mes. Arc Mérid. Equat., 9, p. B 69, 1911—Yamboya and Auca, Ecuador.

*Planesticus serranus* Chapman, Bull. Amer. Mus. N. H., 36, p. 532, 1917—Chingassa, Subia, and Andalucia, eastern Andes, Colombia (crit.).

*Turdus serranus fuscobrunneus* Chapman, Bull. Amer. Mus. N. H., 55, p. 579, 1926—San Bartolo, Baeza, below Oyacachi, and upper Sumaco, Ecuador (crit.).

**Range.**—Subtropical zone of Colombia (excluding Santa Marta region) and Ecuador.

**\**Turdus serranus atroserriceus* (Lafresnaye).<sup>1</sup> VENEZUELAN BLACK OUZEL.**

we are unable to ascertain if any constant difference exists between birds from western and eastern Colombia. Chapman, who at one time had referred them to two separate races, now unites them, together with the Ecuadorian ones, under the name of *fuscobrunneus*. Three adult males from "Bogotá" seem to be inseparable from Cauca specimens, but we have no females from the eastern Andes.

**Material examined.**—Colombia: San Antonio, 2; Los Jambos, 1; Rio Lima, Cauca, 1; Jorne, Cauca, 1; Bogotá, 4.—Ecuador: below Quito, 1; Cayandedel, 1.

<sup>1</sup> *Turdus serranus atroserriceus* (Lafresnaye): Size about the same as in *T. s. fuscobrunneus*, but bill decidedly larger. Adult female very different in coloration, being dull olive brown above with very little, if any, rufescent tinge on the forehead, and with dark olive brown or blackish brown (not rufescent) tail, and brownish gray underneath, slightly washed with olivaceous or dull brownish on foreneck, chest, and flanks. In first annual plumage, however, the female is strongly rufescent brown above, brightest on forehead and wings, and the entire lower surface, except for the grayish median portion, is likewise rufescent, though lighter than the upper parts, the whole coloration being much paler and more rufescent than in the female of *fuscobrunneus*. Wing, (adult males) 119–127, (females) 114–121; tail, 100–110, rarely 112–115, (females) 97–108; bill, 24–27½.

**Material examined.**—Venezuela: Silla de Caracas, 7; Galipán, Cerro del Ávila, near Caracas, 88; La Cumbre de Valencia, Carabobo, 3; Guarico, Lara, 1; Guamito, Trujillo, 1; Culata, Mérida, 5; El Valle, Mérida, 2; Tabay, Mérida, 1.

*Merula atro-sericea* Lafresnaye, Rev. Zool., 11, p. 3, 1848—Caracas, Venezuela (types now in Museum of Comparative Zoology, Cambridge, Mass.; cf. Bangs, Bull. Mus. Comp. Zool., 70, p. 327, 1930); Seebohm, Cat. Bds. Brit. Mus., 5, p. 239, 1881—Venezuela<sup>1</sup> (monog.); Sharpe, in Seebohm, Monog. Turd., 2, p. 43, 1900—Caracas and Mérida, Venezuela (monog.).

*Turdus atroseiceus* Selater, Proc. Zool. Soc. Lond., 27, p. 333, 1859—part, Venezuela; idem, Cat. Coll. Amer. Bds., p. 5, 1862—part, spec. a, b, Venezuela.

*Turdus serranus* (not of Tschudi) Selater and Salvin, Proc. Zool. Soc. Lond., 1870, pp. 780, 783—Mérida, Venezuela (crit., excl. type of *T. serranus*); idem, Nomencl. Av. Neotrop., p. 2, 1873—part, Venezuela.

*Turdus serranus atro-sericeus* Hellmayr and Seilern, Arch. Naturg., 78, A, Heft 5, p. 36, 1912—Cumbre de Valencia, Venezuela.

*Planesticus serranus atro-sericeus* Hellmayr, Arch. Naturg., 90, A, Heft 2, p. 135, 1924—Galipán, Cerro del Avila, and Silla de Caracas, Venezuela (crit., plumages, molt).

**Range.**—Subtropical zone of northern Venezuela, from Caracas to Mérida.

2: Venezuela (Guamito, Trujillo, 1; Tabay, Mérida, 1).

***Turdus serranus cumanensis* (Hellmayr).<sup>2</sup> SUCRE BLACK OUZEL.**

*Planesticus serranus cumanensis* Hellmayr, Verh. Orn. Ges. Bay., 14, p. 127, 1919—mountains inland of Cumaná, "Bermúdez"—Sucre (type in Munich Museum).

*Turdus serranus cumanensis* Chapman, Amer. Mus. Nov., 191, p. 10, 1925—Carapas, Neverí, and Turumiquire, Sucre.

**Range.**—Subtropical zone of northeastern Venezuela (State of Sucre).

***Turdus infuscatus* (Lafresnaye).<sup>3</sup> GUATEMALAN BLACK OUZEL.**

*Merula infuscata* Lafresnaye, Rev. Zool., 7, p. 41, 1844—Mexico (descr. of male; type now in Museum of Comparative Zoology, Cambridge, Mass.; cf. Bangs, Bull. Mus. Comp. Zool., 70, p. 327, 1930); Sharpe, in Seebohm, Monog. Turd., 2, p. 49, pl. 89, 1900—Mexico (Jalapa, Cofre de Perote, El

<sup>1</sup> The localities "extreme north of Colombia" and Trinidad are erroneous. The reference *Turdus xanthosceles* Léotaud pertains to *Platycichla flavipes melanopleura* (Sharpe).

<sup>2</sup> *Turdus serranus cumanensis* (Hellmayr): Adult male similar to that of *T. s. atro-sericeus*; male in first annual plumage very much darker, nearly chocolate brown both above and below, with deeper rufous brown wings, more blackish brown tail, and darker, nearly blackish brown axillaries and under wing coverts; adult female also darker, the upper parts less olivaceous, the lower surface deep sooty gray, the under wing coverts barely fringed with orange-ochraceous, and the bill wholly yellow. Wing, (adult male) 117–123, (adult female) 116, 117; tail, 108–111, (female) 104–107; bill, 23–24.

**Material examined.**—Venezuela: mountains inland of Cumaná, 8.

<sup>3</sup> We are not acquainted with this species, which appears to be closely related to, and possibly a representative of, the *T. serranus* group.

Patio, Orizaba, Totontepec) and Guatemala (Coban and Sierra de las Minas).

*Turdus infuscatus* Sclater and Salvin, Ibis, 1859, p. 6—Guatemala; Sclater, Proc. Zool. Soc. Lond., 27, p. 334, 1859—Jalapa, Vera Cruz, and Oaxaca, Mexico, and Guatemala (monog., descr. of male and female); idem, l.c., p. 362, 1859—Jalapa, Mexico; idem, l.c., p. 370, 1859—Totontepec, Oaxaca; idem, Cat. Coll. Amer. Bds., p. 5, 1862—Jalapa; Baird, Rev. Amer. Bds., 1, p. 31, 1864—Jalapa, and Vera Paz, Guatemala; Sumichrast, Mem. Bost. Soc. N. H., 1, p. 543, 1869—mountains of Vera Cruz; Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 24, 1879—Jalapa, Totontepec, and mountains of Orizaba (Mexico), Coban, ridge above San Gerónimo, and Quezaltenango (Guatemala).

*Merula infuscatra* Seeböhm, Cat. Bds. Brit. Mus., 5, p. 240, 1881—southern Mexico and Guatemala (monog.).

*Semimerula infuscata* Heine and Reichenow, Nomencl. Mus. Hein., p. 4, 1890—Totontepec, Oaxaca.

*Planesticus infuscatus* Ridgway, Bull. U. S. Nat. Mus., 50, Part 4, p. 121, 1907—southeastern Mexico and Guatemala (monog.).

**Range.**—Highlands of southeastern Mexico, in states of Vera Cruz (Jalapa, El Patio, Cofre de Perote, Orizaba), Oaxaca (Totontepec), and Chiapas (Pinabete, Tumbalá); Guatemala (Coban, Vera Paz; above San Gerónimo; Quezaltenango; Sierra de las Minas), and El Salvador.<sup>1</sup>

### ***Turdus fuscater fuscater* Lafresnaye and d'Orbigny.<sup>2</sup> BOLIVIAN GREAT OUZEL.**

*Turdus fuscater* Lafresnaye and d'Orbigny, Syn. Av., 1, in Mag. Zool., 7, cl. 2, p. 16, 1837—"in Andibus (Bolivia)" (the types examined in the Paris Museum are from La Paz); d'Orbigny, Voy. Amér. Mérid., Ois., p. 200, pl. 9, fig. 1, 1838—part, La Paz, Enquisivi [Sicasica], and Cochabamba; Hellmayr, Bull. Brit. Orn. Cl., 16, p. 92, 1906—La Paz, Bolivia (crit.).

*Turdus fuscatus* Sclater and Salvin, Proc. Zool. Soc. Lond., 1879, p. 591—part, La Paz, Enquisivi, and Cochabamba (ex d'Orbigny).

*Turdus gigas* (not of Fraser) Sclater and Salvin, Proc. Zool. Soc. Lond., 1879, p. 591—Sorata and Tilotilo, Bolivia (spec. in British Museum examined); Allen, Bull. Amer. Mus. N. H., 2, p. 78, 1889—Yungas, Bolivia.

<sup>1</sup> Fide A. van Rossem (in litt.).

<sup>2</sup> *Turdus fuscater fuscater* Lafresnaye and d'Orbigny differs from the more northern representatives of this "Formenkreis" by smaller size, weaker legs and feet, blackish head, and more conspicuous whitish chin-spot. The female is much more brownish above including top and sides of the head, and has the throat pale brown striped with dusky, and the breast and abdomen pale brownish olive, while the axillaries and under wing coverts are dusky brown, edged with dull orange instead of plain sooty gray. Wing, (male) 149–154, (female) 140–145; tail, 139–145, (female) 132–138; bill, 25–27.

**Material examined.**—Bolivia: La Paz (including the types), 4; Cocapata, 2; Chaco, Yungas, 1; Sandillani, 1; Cillutincara, 2; Sorata, 1.

416 FIELD MUSEUM OF NATURAL HISTORY—ZOOLOGY, VOL. XIII

*Merula gigantodes* (not *Turdus gigantodes* Cabanis) Seebohm, Cat. Bds. Brit. Mus., 5, p. 244, 1881—part, Bolivia.

*Merula gigas* Sharpe, in Seebohm, Monog. Turd., 2, p. 57, 1900—part, Sorata, Bolivia.

*Planesticus fuscater fuscater* Hellmayr, Nov. Zool., 28, p. 230, 1921—western Yungas of Bolivia (monog.).

*Turdus fuscater fuscater* Chapman, Amer. Mus. Nov., 160, p. 1, 1925—Cuchacancha, near Cochabamba, Bolivia.

*Range*.—Temperate zone of western Bolivia (depts. of La Paz and Cochabamba).

***Turdus fuscater ockendeni* Hellmayr.<sup>1</sup> OCKENDEN'S GREAT OUZEL.**

*Turdus fuscater ockendeni* Hellmayr, Bull. Brit. Orn. Cl., 16, p. 91, May, 1906—Limbani, Andes of Carabaya, Peru (type in Tring Museum); Hartert, Nov. Zool., 27, p. 477, 1920—Limbani.

*Turdus gigantodes* (not of Cabanis) Sclater and Salvin, Proc. Zool. Soc. Lond., 1874, p. 677—Ccachupata, Andes of Cuzco (spec. in British Museum examined).

*Merula gigantodes* Seebohm, Cat. Bds. Brit. Mus., 5, p. 244, 1881—part, Peru (diag. and hab.); Taczanowski, Orn. Pér., 1, p. 495, 1884—part, Ccachupata (crit.); Sharpe, in Seebohm, Monog. Turd., 2, p. 59, pl. 93, 1900—part, Ccachupata and Cuzco, southern Peru.

*Semimerula gigas gigantodes* Chapman, Bull. U. S. Nat. Mus., 117, p. 104, 1921—Occobamba Valley, Dept. Cuzco, Peru.

*Planesticus fuscater ockendeni* Hellmayr, Nov. Zool., 28, p. 232, 1921—Andes of southeastern Peru (crit.).

*Range*.—Temperate zone of southeastern Peru, in Dept. of Cuzco (Cuzco, Ccachupata, Occobamba, Limbani, Marcapata).

**\**Turdus fuscater gigantodes* Cabanis.<sup>2</sup> PERUVIAN GREAT OUZEL.**

*Turdus gigantodes* Cabanis, Journ. Orn., 21, p. 315, 1873—Maraynioc, Dept. Junín, Peru (type in Berlin Museum examined); Taczanowski, Proc. Zool. Soc. Lond., 1874, p. 503—Maraynioc and Ninabamba, Dept. Junín; idem, l.c., 1880, p. 190—Cutervo, Peru (eggs descr.).

<sup>1</sup> *Turdus fuscater ockendeni* Hellmayr: Much the darkest of all the races, the adult male being chocolate or blackish brown, only a few feathers on the breast and upper back showing narrow brownish edges; axillaries, under wing coverts, remiges, and tail blackish instead of sooty gray; no trace of a white chin spot; female strongly washed with olive brown underneath. Wing, (male) 149–150, (female) 146; tail, 139–144; bill, 28–29.

*Material examined*.—Peru: Limbani, Carabaya, 2; Marcapata Valley (alt. 9,000 ft.), 4; Ccachupata, 1; Andes of Cuzco, 1.

<sup>2</sup> *Turdus fuscater gigantodes* Cabanis: Nearest to *T. f. gigas* and about the same size, but decidedly darker and more sooty throughout, the upper parts being deep mouse gray rather than chaetura drab, and the under parts mouse gray instead

*Turdus gigas* (not of Fraser) Sclater, Proc. Zool. Soc. Lond., 26, p. 451, 1858—Cuenca, Ecuador; idem, l.c., p. 550, 1858—Matos and Titiacun, plateau of Riobamba; idem, l.c., 27, p. 136, 1859—Pallatanga; idem, l.c., p. 332, 1859—part, Cuenca and plateau of Riobamba; idem, l.c., 28, p. 63, 1860—Chillanes, above Pallatanga, Ecuador; idem, Cat. Coll. Amer. Bds., p. 5, 1862—part, spec. a, Matos; Sclater and Salvin, Exot. Orn., p. 139, 1868—part, Cuenca, Titiacun, Matos, Pallatanga, Ecuador.

*Merula gigas* Seebohm, Cat. Bds. Brit. Mus., 5, p. 244, 1881—part, Ecuador; Sharpe, in Seebohm, Monog. Turd., 2, p. 57, 1900—part, Cuenca, Titiacun, and Matos, Ecuador, and Ninabamba, Peru.

*Merula gigantodes* Seebohm, Cat. Bds. Brit. Mus., 5, p. 244, 1881—part, Peru; Sharpe, in Seebohm, Monog. Turd., 2, p. 59, 1900—part, Peru (excl. Ccachupata and Andes of Cuzco); Taczanowski, Orn. Pér., 1, p. 495, 1884—part, Maraynioc and Cutervo.

*Turdus gigas gigantodes* Berlepsch and Stolzmann, Proc. Zool. Soc. Lond., 1896, p. 327—Pariayacu, Dept. Junín, Peru; Bangs and Noble, Auk, 35, p. 456, 1918—Huancabamba, Dept. Piura, Peru.

*Planesticus fuscater gigantodes* Hellmayr, Nov. Zool., 28, p. 233, 1921—part, Ecuador (Matos, Titiacun, Cuenca, Chillanes, Pallatanga, Riobamba) and Peru (crit.).

*Turdus fuscater gigantodes* Chapman, Bull. Amer. Mus. N. H., 55, p. 582, 1926—Chiral, San Bartolo, Taraguacocha, Guachanamá, Celica, El Paso, Bestion, and Loja, Ecuador, and El Tambo, Peru; Zimmer, Field Mus. Nat. Hist., Zool. Ser., 17, p. 410, 1930—mountains near Huánuco and Cullcui, Marañón River, Peru.

*Turdus fuscater quindio* Chapman, Bull. Amer. Mus. N. H., 55, p. 582, 1926—part, above Chambo, Hacienda Garzon, Chunchi, Huigra, and Pallatanga, Ecuador.

*Range.*—Temperate zone of Peru (excepting southeastern section) and southern Ecuador (from the plateau of Riobamba southward).

27: Peru (Huánuco Mountains, Huánuco, 5; Cullcui, Marañón River, Huánuco, 1; Macate, Ancachs, 1; Hacienda Llagueda, north-east of Otuzco, Libertad, 1; Hacienda Limón, ten miles west of Balsas, Cajamarca, 5; mountains east of Balsas, Amazonas, 1; Chachapoyas, Amazonas, 4; Molinopampa, Amazonas, 1); Ecuador (Hoyaucshi, south of Huigra, 3; Chical, Dept. Cañar, 4; Cochaseca, south of Huigra, Dept. Chimborazo, 1).

of light brownish gray; axillaries and under wing coverts like the lower surface, very rarely fringed with buffy.

Specimens from the Huigra district in Ecuador agree in every respect with Peruvian birds, and vary within the same limits. In opposition to Chapman, I am, therefore, inclined to restrict the Ecuadorian range of *T. f. quindio* to the northern section, and unhesitatingly refer the thrushes from the plateau of Riobamba and southward to *T. f. gigantodes*.

*Additional specimens examined.*—Peru: Cutervo, 2; Ninabamba, 1; Maraynioc (the type), 1; Palaquemado, 1.

**\**Turdus fuscater quindio* Chapman.<sup>1</sup> QUINDIO GREAT OUZEL.**

*Turdus fuscater quindio* Chapman, Amer. Mus. Nov., 160, p. 1, 1925—Laguneta, central Andes, Colombia (type in the American Museum of Natural History, New York); idem, Bull. Amer. Mus. N. H., 55, p. 582, 1926—part, Mojanda Mountains, Pichincha, Cumbaya, upper Sumaco, Zuna, Rio Upani, Oyacachi, below Papallacta, and above Baeza, Ecuador.

*Turdus gigas* (not of Fraser) Sclater, Proc. Zool. Soc. Lond., 28, p. 84, 1860—Nanegal, Ecuador; Sclater and Salvin, l.c., 1879, p. 491—Retiro and Santa Elena, Antioquia, Colombia (eggs descr.); Taczanowski and Berlepsch, l.c., 1885, p. 70—Baños, Ecuador; Hartert, Nov. Zool., 5, p. 479, 1898—Cayambé, Ecuador; Salvadori and Festa, Boll. Mus. Zool. Torino, 14, No. 357, p. 4, 1899—Chaupi and Chillo Valley, northern Ecuador; Goodfellow, Ibis, 1901, p. 310—Papallacta, western side of Corazón and Pichincha, Ecuador.

*Merula gigas* Seeböhm, Cat. Bds. Brit. Mus., 5, p. 244, 1881—part, Santa Elena; Sharpe, in Seeböhm, Monog. Turd., 2, p. 57, 1900—part, Santa Elena and Pasto (Colombia), Sical, Monji, Baños, and Cayambé (Ecuador).

*Semimerula gigas* Heine and Reichenow, Nomencl. Mus. Hein., p. 4, 1890—part, Cachi-Llacta, Ecuador; Ménégau, Miss. Serv. Géogr. Armée Mes. Arc Mérid. Equat., 9, p. B 70, 1911—Garretas, above Santo Domingo, Ecuador; Piguet, Mém. Soc. Neuchât. Sci. Nat., 5, p. 808, 1914—Medellin and La Camelia (near Angelópolis), central Andes, Colombia; Lönnberg and Rendahl, Ark. Zool., 14, No. 25, p. 77, 1922—near Tumbaco, Chaupicruz, near Quito, near Nono, Pichincha, and Tablon road to Papallacta, Ecuador.

*Turdus fuscater gigas* Berlioz, Bull. Mus. Hist. Nat. Paris, 34, p. 73, 1928—Aluguincho and Volcan de San Pedro Tingo, Ecuador.

*Semimerula gigas gigantodes* (not *Turdus gigantodes* Cabanis) Chapman, Bull. Amer. Mus. N. H., 36, p. 537, 1917—Paramillo, west of Popayán, Cerro Munchique, Cocal, Almaguer, Valle de las Pappas, western Andes, and Laguneta, Santa Isabel, El Eden, Rio Toché, Santa Elena, and Barro Blanco, central Andes, Colombia.

*Planesticus fuscater gigantodes* Hellmayr, Nov. Zool., 28, p. 233, 1921—part, western and central Andes of Colombia and northern Ecuador (Cayambé, Chaupi, Papallacta, Corazón).

**Range.**—Temperate zone of the western and central Andes of Colombia and northern Ecuador, south to the latitude of Baños.

2: Colombia (Santa Isabel, Quindio Andes, 1; Paramillo, western Andes, Antioquia, 1).

<sup>1</sup> *Turdus fuscater quindio* Chapman: Very close to *T. f. gigantodes*, but even more deeply colored, dark mouse gray above and deep mouse gray below.

Specimens from northern Ecuador (Cayambé, Quito) and Baños are identical with a Colombian series.

**Material examined.**—Colombia: central Andes, Santa Isabel, 3; Laguneta, 5; Santa Elena, 1; western Andes, Paramillo, 5; San Pablo, Prov. Tuqueres, 1.—Ecuador: Cayambé, 1; near Quito, 4; Baños, 1.



\***Turdus fuscater gigas** Fraser. COLOMBIAN GREAT OUZEL.

*Turdus gigas* Fraser, Proc. Zool. Soc. Lond., 8, "1840," p. 59, pub. Mar., 1841—Santa Fé de Bogotá, Colombia (type in Derby Collection, now in Liverpool Museum); Sclater, l.c., 23, p. 144, 1855—Bogotá; idem, l.c., 27, p. 332, 1859—part, "New Granada"; idem, Cat. Coll. Amer. Bds., p. 5, 1862—part, spec. a, b, Bogotá; Sclater and Salvin, Exot. Orn., p. 139, pl. 70, 1868—part, Bogotá; Wyatt, Ibis, 1871, p. 320—a day's journey from Ocaña and under the Páramo de Pamplona, Santander; Sclater and Salvin, Proc. Zool. Soc. Lond., 1875, p. 234—Mérida, Venezuela; Salvin, Cat. Strickl. Coll., p. 7, 1882—Bogotá; Berlepsch, Journ. Orn., 32, p. 279, 1884—Bucaramanga.

*Turdus gigas pallidiventris* Berlepsch, Ornith. Monatsber., 10, p. 71, 1902—Andes of Mérida, Venezuela (type in Berlepsch Collection, now in Frankfurt Museum).

*Merula gigas* Seebohm, Cat. Bds. Brit. Mus., 5, p. 244, 1881—part, Bogotá; Stone, Proc. Acad. Nat. Sci. Phila., 51, p. 312, 1899—Bogotá; Sharpe, in Seebohm, Monog. Turd., 2, p. 57, pl. 92, 1900—part, Mérida, Bogotá, and Bucaramanga.

*Turdus (Merula) fuscater* (not of Lafresnaye and d'Orbigny) Lesson, Echo du Monde Sav., 11, 2nd sem., No. 7, col. 157, 1844—"Colombie"; idem, Oeuvr. Buffon, éd. Lévêque, 20, (Descr. Mamm. Ois.), p. 307, 1847—"Colombie."

*Semimerula gigas* Heine and Reichenow, Nomencl. Mus. Hein., p. 4, 1890—part, Bogotá.

*Semimerula gigas gigas* Chapman, Bull. Amer. Mus. N. H., 36, p. 536, 1917—Bogotá, El Roble, Chipaque, and Quetame, eastern Andes, Colombia.

*Planesticus fuscater gigas* Hellmayr, Nov. Zool., 28, p. 234, 1921—eastern Andes of Colombia (crit.).

*Planesticus fuscater pallidiventris* Hellmayr, Nov. Zool., 28, p. 234, 1921—Andes of Mérida, Venezuela (crit.).

**Range.**—Eastern Andes of Colombia, and Cordilleras of western Venezuela (Tachira and Mérida).

5: Venezuela (Páramo de Tamá, Tachira, 4; Rio Mucujón, Mérida, 1).<sup>1</sup>

**Turdus fuscater cacozelus** (Bangs).<sup>2</sup> SANTA MARTAN GREAT OUZEL.

<sup>1</sup> More adequate material tends to show that Venezuelan birds (*pallidiventris*) are inseparable from typical *gigas*, although they possibly have the under wing coverts on average more distinctly margined with ochraceous and the middle of the abdomen very slightly paler. These insignificant divergencies need corroboration by larger series.

**Material examined.**—Colombia: La Pica, Santander, 2; Bogotá, 10; Guasca, 1; Calera, 1; Bucaramanga, 1.—Venezuela: Páramo de Tamá, Tachira, 4; El Valle, Mérida, 5; Rio Mucujón, Mérida, 1.

<sup>2</sup> *Turdus fuscater cacozelus* (Bangs): Easily distinguished from *T. f. gigas* by smaller size, stouter bill, much paler (light hair brown instead of clove brown) upper parts, much more olivaceous wings and under parts, and by having the under

*Merula gigas cacozela* Bangs, Proc. Biol. Soc. Wash., 12, p. 181, 1898—Macotama, Sierra Nevada de Santa Marta, Colombia (type in coll. of E. A. and O. Bangs, now in Museum of Comparative Zoology, Cambridge, Mass.); idem, l.c., 13, p. 107, 1899—San Miguel, Páramo de Chiriqua, and Páramo de Macotama; idem, Proc. New Engl. Zool. Cl., 1, p. 80, 1899—San Sebastian and El Mamon; Allen, Bull. Amer. Mus. N. H., 13, p. 181, 1900—Santa Marta region.

*Turdus gigas* (not of Fraser) Salvin and Godman, Ibis, 1879, p. 198—San Sebastian.

*Merula cacozela* Sharpe, in Seebohm, Monog. Turd., 2, p. 61, pl. 94, 1900—San Sebastian and Macotama, Sierra Nevada de Santa Marta.

*Planesticus fuscater cacozelus* Hellmayr, Nov. Zool., 28, p. 234, 1921—Sierra Nevada de Santa Marta (crit.).

*Semimerula cacozela* Todd and Carriker, Ann. Carnegie Mus., 14, p. 402, 1922—San Lorenzo, San Miguel, Cerro de Caracas, and Páramo de Chiriqua (crit.).

*Turdus cacozela* Bangs, Bull. Mus. Comp. Zool., 70, p. 330, 1930—Macotama.

**Range.**—Subtropical and Temperate zones of the Sierra Nevada de Santa Marta, Colombia.

**\**Turdus nigrescens* Cabanis. SOOTY OUZEL.**

*Turdus nigrescens* Cabanis, Journ. Orn., 8, p. 324, 1860—Volcan de Irazú, Costa Rica (type in Berlin Museum); Lawrence, Ann. Lyc. Nat. Hist. N. Y., 9, p. 91, 1868—Irazú and Dota, Costa Rica; Frantzius, Journ. Orn., 17, p. 290, 1869—Irazú, Costa Rica (alt. 9,000–10,000 ft.); Salvin, Proc. Zool. Soc. Lond., 1870, p. 180—Volcan de Chiriquí, Panama; Boucard, l.c., 1878, p. 50—Volcan de Irazú, Costa Rica (nest and eggs, habits); Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 25, pl. 4, 1879—Costa Rica and Chiriquí.

*Merula nigrescens* Seebohm, Cat. Bds. Brit. Mus., 5, p. 242, 1881—Costa Rica and Panama; Ridgway, Proc. U. S. Nat. Mus., 5, p. 494, 1882—summit of Irazú; Zeledón, Anal. Mus. Nac. Costa Rica, 1, p. 104, 1887—Volcan de Irazú; Sharpe, in Seebohm, Monog. Turd., 2, p. 63, pl. 95, 1900—Costa Rica and Chiriquí (monog.); Bangs, Proc. New Engl. Zool. Cl., 3, p. 49, 1902—Volcan de Chiriquí, Panama.

*Planesticus nigrescens* Ridgway, Bull. U. S. Nat. Mus., 50, Part 4, p. 124, 1907—Costa Rica and Chiriquí, Panama (monog.); Ferry, Field Mus. Nat. Hist., Orn. Ser., 1, p. 272, 1910—Volcan de Turrialba, Costa Rica; Carriker, Ann. Carnegie Mus., 6, p. 738, 1910—Las Vueltas de Dota, Azahar de Cartago, Volcanoes de Irazú, Póas, and Turrialba, and Escazú, Costa Rica (habits, nest, and eggs).

**Range.**—Mountain ranges of Costa Rica and western Panama (Chiriquí).

21: Costa Rica (Volcan de Turrialba, 19; Volcan de Irazú, 2).

wing coverts broadly margined with deep ochraceous-buff. Wing, (males) 145–150, (females) 140–153; tail, 133–146; bill, 28–30½.

**Material examined.**—Colombia: San Miguel, 4; Páramo de Chiriqua, 2; Páramo de Macotama, 4.

**\**Turdus chiguanco chiguanco* Lafresnaye and d'Orbigny.  
D'ORBIGNY'S OUZEL.**

*Turdus chiguanco* Lafresnaye and d'Orbigny, Syn. Av., 1, in Mag. Zool., 7, cl. 2, p. 16, 1837—Tacna, southwestern Peru (types in Paris Museum examined); d'Orbigny, Voy. Amér. Mérid., Ois., p. 201, pl. 9, fig. 2, 1838—from Tacna up to Palca, Peru; Sclater, Proc. Zool. Soc. Lond., 26, p. 451, 1858—no locality stated, but evidently Cuenca, Ecuador; idem, l.c., p. 550, 1858—Riobamba, Ecuador; idem, l.c., 27, p. 333, 1859—Tacna, Peru, and Cuenca and Riobamba, Ecuador (monog.); idem, Cat. Coll. Amer. Bds., p. 5, 1862—Riobamba and Cuenca; idem, Proc. Zool. Soc. Lond., 1866, p. 96—Lima, Peru; Sclater and Salvin, l.c., 1867, p. 984—Islay and Arequipa, Peru; Taczanowski, l.c., 1874, p. 503—Chilpes and Maraynioc, Junín, and Huanta, Ayacucho; Allen, Bull. Mus. Comp. Zool., 3, p. 353, 1876—Conima and Moho, Lake Titicaca, Peru; Sclater and Salvin, Proc. Zool. Soc. Lond., 1879, p. 591—Palca and Tacna, Peru, and Tilotilo, Bolivia; Seebohm, Cat. Bds. Brit. Mus., 5, p. 225, 1881—Ecuador, Peru (Islay, Arequipa), Bolivia; Sclater, Proc. Zool. Soc. Lond., 1886, p. 396—Sibaya, Tarapacá, Chile; Berlepsch and Stolzmann, l.c., 1892, p. 373—Ica, Peru; idem, l.c., 1896, p. 326—Acobamba, Tarma, and Garita del Sol, Dept. Junín, Peru; Salvin, Nov. Zool., 2, p. 2, 1895—Cajamarca, Peru; Sharpe, in Seebohm, Monog. Turd., 1, p. 303, pl. 69, 1899—Ecuador, Peru, Bolivia, and Tarapacá (monog.); Berlepsch and Stolzmann, Ornith., 13, pp. 66, 105, 1906—Coracora, Ayacucho, and Huaynapata, Marcapata, Peru.

*Turdus conradi* Salvadori and Festa, Boll. Mus. Zool. Torino, 14, No. 357, p. 4, 1899—Cuenca and Sig-sig, Ecuador (type in Turin Museum examined); Sharpe, in Seebohm, Monog. Turd., 2, p. 238, 1902 (crit.); Hellmayr, Nov. Zool., 28, p. 236, 1921—Ecuador (crit.).

*Turdus fuscat* (not of Lafresnaye and d'Orbigny) Tschudi, Faun. Peru., Aves, p. 186, 1846—Peru.

*Merula chiguanco* Taczanowski, Orn. Pér., 1, p. 494, 1884—Maraynioc and Huanta, Peru.

*Turdus fuscoater* (not *Turdus fuscat* Lafresnaye and d'Orbigny) Philippi and Landbeck, Arch. Naturg., 26, (1), p. 284, 1860—Tacna; idem, Anal. Univ. Chile, 18, p. 33, 1861—Tacna; Philippi, Anal. Mus. Nac. Chile, 15, p. 20, 1902—Tacna.

*Turdus chiguanco conradi* Bangs and Noble, Auk, 35, p. 456, 1918—Huanca-bamba, Dept. Piura, Peru; Chapman, Bull. Amer. Mus. N. H., 55, p. 583, 1926—Riobamba, El Paso, Loja, and Chimborazo, Ecuador (crit.).

*Planesticus chiguanco chiguanco* Hellmayr, Nov. Zool., 28, p. 235, 1921—Tacna, Peru, and Bolivia (crit.).

*Semimerula chiguanco* Chapman, Bull. U. S. Nat. Mus., 117, p. 104, 1921—San Miguel Bridge, Torontoy, Huaracundo Canyon, Chospiyoc, Ollantaytambo, Pisac, Calca, Ttica-Ttica, Cuzco, and La Raya, Peru.

*Turdus chiguanco chiguanco* Zimmer, Field Mus. Nat. Hist., Zool. Ser., 17, p. 411, 1930—Matucana, La Quinua, above Huánuco, Huánuco Viejo, Cullcui (Marañón River), and Chinchao, Peru (crit.); Hellmayr, l.c., 19, p. 29, 1932—Chile (crit., range).

*Range*.—Southern Ecuador (from Chimborazo southward), Peru, northwestern Bolivia (Dept. La Paz), and northern Chile (provinces of Tacna and Tarapacá).<sup>1</sup>

31: Peru (Chachapoyas, Amazonas, 2; Rio Utcubamba, Amazonas, 2; Cajamarca, 5; Hacienda Llagueda, northeast of Otuzco, Libertad, 2; Macate, Ancachs, 9; Matucana, Lima, 4; La Quinua, Junín, 1; Huánuco, 1; Huánuco Mountains, 1; Huánuco Viejo, 1; Cullcui, Marañón River, Huánuco, 1; Chinchao, Huánuco, 1); Chile (Putre, Tacna, 1).

**\**Turdus chiguanco anthracinus* Burmeister.<sup>2</sup> SOOTY OUZEL.**

*Turdus anhracinus* Burmeister, Journ. Orn., 6, p. 159, 1858—Mendoza (type in the Halle Museum); Wetmore, Bull. U. S. Nat. Mus., 133, p. 358, 1926—Potrerillos and El Salto, Mendoza; Friedmann, Bull. Mus. Comp. Zool., 68, p. 213, 1927—Concepción, Tucumán.

<sup>1</sup> Subdivision of *T. c. chiguanco* seems to be impracticable. Most of the color characters supposed (Nov. Zool., 28, pp. 235–236, 1921) to be distinctive of the coastal form fail to hold in the additional material since examined, while size, which Dr. Chapman (1926, p. 583) uses as the principal basis for discriminating two races, is subject to considerable individual variation, as we have shown in our memoir on the birds of Chile. Ecuadorian specimens (*conradi*), in the light of an adequate series, prove to be inseparable from the larger Peruvian birds, with which four from the Yungas of La Paz, Bolivia, also agree. Certain individuals, notably one from Putre, Tacna, by their more slaty coloration, form the transition to *T. c. anhracinus*. Four adults from Chicani, on the northern slope of the Cordillera of La Paz, Bolivia, differ from all others examined in this connection by larger feet, proportionately longer tail, more brownish upper parts, and less ochraceous suffusion under the wings, and may prove to be separable subspecifically.

*Additional material examined*.—Ecuador: Sig-sig (type of *T. conradi*), 1; Cuenca, 1; Loja, 1; Chimborazo, 3.—Peru: Dept. Arequipa, Catarindos Valley, 1; Islay, 2; Arequipa, 1; Cocachaca, 2; Moquegua, 2; Dept. Cuzco, Huiro, Urubamba, 1; Lauramarca, 6; Lucre, 5; Anta, 2; Marcapata (alt. 6,000 ft.), 1; Ollachea, near Macusani, Dept. Puno, 1.—Bolivia, Dept. La Paz: Cusillani, 1; Tanampaya, 1; Chaco (Yungas), 2; Chicani, 4.—Chile: Tacna (types of *T. chiguanco*), 3; Sibaya, Tarapacá, 1.

<sup>2</sup> *Turdus chiguanco anthracinus* Burmeister resembles the typical race in general form, but is much darker (fuscous in adult males) and lacks the strong ochraceous or orange color on the axillaries and under wing coverts. Females and immature birds are not always easily told apart, and specimens from eastern La Paz (Sandillani) are intermediate between *chiguanco* and *anthracinus*. Birds from Mendoza have very long, those from central Bolivia (Valle Grande) much shorter bills, and, when compared alone, appear to be well separated. However, the passage between these two extremes in the intervening parts of Argentina is so gradual that, by splitting *anthracinus*, it would be impossible to assign a large percentage of the birds from the northwestern provinces to either of the two races. The bills of adult males measure as follows: Mendoza, 30, 30, 32; Sierra de Cordoba, 27, 28, 28, 29; Tucumán, 25, 26, 26, 27, 28, 29, 29; Salta, 25; Valle Grande, western Santa Cruz, Bolivia, 24, 24, 25, 25, 26, 27; Sandillani, eastern La Paz, Bolivia, 25.

*Material examined*.—Mendoza: Melocotón, 2; San Rafael, 1; Mendoza, 6.—Cordoba: El Carrizal, 5; Cosquin, 2.—Catamarca: Fuerte de Andalgala, 2.—Tucumán: Santa Ana, 1; Lagunita, 1; Las Pavas, 1; Monteagudo, 1; Santa Barbara, 1; Concepción, 1; Tucumán, 3.—Salta: Salta, 1.—Bolivia: Valle Grande, 13; Sandillani, 2.

- Turdus fuscater amoenus* Hellmayr, Journ. Orn., 50, p. 68, 1902—Mendoza (type in Berlin Museum); Hartert and Venturi, Nov. Zool., 16, p. 162, pl. 2, figs. 3, 4 (eggs), 1909—Tucumán.
- Turdus fuscater* d'Orbigny, Voy. Amér. Mérid., Ois., p. 200, 1837—part, Mizque, Valle Grande, and Chuquisaca, Bolivia; Fraser (and Bridges), Proc. Zool. Soc. Lond., 11, p. 120, 1843—vicinity of Mendoza; Sclater, l.c., 27, p. 332, 1859—part, Chuquisaca and Mendoza; Burmeister, Journ. Orn., 8, p. 252, 1860—Mendoza, Cordoba, and Tucumán; idem, Reise La Plata St., 2, p. 474, 1861—same localities; White, Proc. Zool. Soc. Lond., 1882, p. 593—Catamarca City and Fuerte de Andalgalá, Catamarca; Sclater and Hudson, Arg. Orn., 1, p. 4, 1888—part, northern La Plata; Frenzel, Journ. Orn., 39, p. 118, 1891—Cordoba; Koslowsky, Rev. Mus. La Plata, 6, pp. 277, 289, 1895—Chilecito, La Rioja, and Catamarca; Reed, Anal. Univ. Chile, 93, p. 198, 1896—Chile; Salvadori, Boll. Mus. Zool. Torino, 12, No. 292, p. 3, 1897—Campo Santo and Tala, Salta.
- Turdus fusco-ater* (not *T. fuscater* Lafresnaye and d'Orbigny) Philippi, Anal. Univ. Chile, 31, p. 260, 1868—near Santiago, Chile; Landbeck, Zool. Gart., 18, p. 246, 1877—Chile.
- Turdus fuscatus* (not of Pallas) Sclater and Salvin, Proc. Zool. Soc. Lond., 1879, p. 591—part, Mizque, Valle Grande, and Chuquisaca (ex d'Orbigny); Reed, Ibis, 1893, p. 595—Mendoza, occurrence in Chile denied; Lönnerberg, Ibis, 1903, p. 456—San Luis, Tarija, Bolivia.
- Merula fuscata* Seebohm, Cat. Bds. Brit. Mus., 5, p. 243, 1881—part, Bolivia, Argentina (as far south as Mendoza), and "Chile"; Sharpe, in Seebohm, Monog. Turd., 2, p. 55, 1900—part, Bolivia and Argentina; Lillo, Anal. Mus. Nac. Hist. Nat. Buenos Aires, 8, p. 171, 1902—Sierras of Tucumán; Baer, Ornith., 12, p. 213, 1904—Santa Ana, Criolla, and Lagunita, Tucumán.
- Merula fuscater* Stempelmann and Schulz, Bol. Acad. Nac. Ci. Cordoba, 10, p. 397, 1890—Cordoba.
- Semimerula fuscata* Bruch, Rev. Mus. La Plata, 11, p. 256, 1904—Salta; Lillo, Rev. Letr. Cienc. Soc., 3, p. 39, 1905—Sierras of Tucumán.
- Planesticus fuscater* Dabbene, Anal. Mus. Nac. Hist. Nat. Buenos Aires, 18, p. 362, 1910—Catamarca, Cordoba, Tucumán, San Luis, Salta; Reed, Av. Prov. Mendoza, p. 40, 1916—Mendoza.
- Planesticus fuscater* subsp. *amoena* Dabbene, Anal. Mus. Nac. Hist. Nat. Buenos Aires, 18, p. 362, 1910—Mendoza.
- Planesticus fuscater amoenus* Sanzin, El Hornero, 1, p. 151, 1918—Blanco Encalada, Mendoza; Reed, l.c., 1, p. 271, 1919—Mendoza (nest and eggs); Dinelli, l.c., 2, p. 312, 1922—Tucumán (nest and eggs).
- Planesticus anthracinus* Hellmayr, Nov. Zool., 28, pp. 232, 236, 1921—Bolivia and Argentina (crit., meas.); Giacomelli, El Hornero, 3, p. 67, 1923—La Rioja.
- Semimerula fuscater amoena* Ménégau, Rev. Franç. d'Orn., 9, p. 327, 1925—Mistol Paso, Santiago del Estero.
- Turdus chiguanco anthracinus* Hellmayr, Field Mus. Nat. Hist., Zool. Ser., 19, p. 31, 1932—Chile.

*Range*.—Mountainous districts of southern Bolivia (eastern La Paz; Cochabamba; western Santa Cruz; Chuquisaca; Tarija) and western Argentina, south to Mendoza, San Luis, and Cordoba; accidental in Chile (Santiago).

10: Argentina (Salta, 1; Tucumán, Santa Barbara, 1; Monteagudo, 1; Concepción, 1; Las Pavas, 1; El Carrizal, Sierra de Cordoba, Cordoba, 5).

### Genus IXOREUS Bonaparte

*Ixoreus* Bonaparte, Compt. Rend. Acad. Sci. Paris, 38, p. 3, 1854—type, by orig. desig., *Turdus naevius* Gmelin.

*Hesperocichla* Baird, Rev. Amer. Bds., 1, p. 32, 1864—type, by monotypy, *Turdus naevius* Gmelin.

### \**Ixoreus naevius naevius* (Gmelin). VARIED THRUSH.

*Turdus naevius* Gmelin, Syst. Nat., 1, (2), p. 817, 1789—based on "Spotted Thrush" Latham, Gen. Syn. Bds., 2, (1), p. 27, and "Varied Thrush" Pennant, Arct. Zool., 2, p. 337, pl. 15; "in sinu Americae Natcae"= Nootka Sound, Vancouver Island, British Columbia.

*Turdus aureus* Pallas, Zoogr. Rosso-Asiat., 1, p. 448, "1826"—Kadiak Island, Alaska (type in Berlin Museum; cf. Cabanis, Journ. Orn., 20, p. 157, 1872).

*Geocichla naevia* Seeböhm, Cat. Bds. Brit. Mus., 5, p. 176, 1881; idem, Monog. Turd., 1, p. 83, 1898.

*Ixoreus naevius* Ridgway, Bull. U. S. Nat. Mus., 50, Part 4, p. 131, 1907 (monog., synonymy in part).

*Hesperocichla naevia naevia* Grinnell, Auk, 18, p. 142, 1901—northwest coast region (crit.).

*Range*.—Pacific coast of North America; breeds in Canadian and Upper Transition zones from Yakutat Bay, Alaska, south to Humboldt County, California; winters from extreme southern Alaska south to southern California.

20: Washington (Clallam Bay, 2); Oregon (Beaverton, 2; Fort Klamath, 1; Star, 1; Logan, 1; Tillamook, 2; Union, 1); California (Nicasio, 5; San Dimas Canyon, 1; Placer County, 2; Los Gatos, 2).

### \**Ixoreus naevius meruloides* (Swainson).<sup>1</sup> NORTHERN VARIED THRUSH.

*Orpheus meruloides* Swainson, Fauna Bor.-Amer., 2, "1831," p. 187, pl. 38, Feb., 1832—Fort Franklin, lat. 63½°, Great Bear Lake, Mackenzie (location of type not stated).

<sup>1</sup> *Ixoreus naevius meruloides* (Swainson): Adult female stated to be paler and grayer in coloration with a greater extension of white markings, and a longer and more pointed wing. Ridgway denies the geographical nature of these variations. At all events, more information about the characters and range of this form is urgently needed.

*Hesperocichla naevia meruloides* Grinnell, Auk, 18, p. 143, 1901—Kowak, etc., Alaska (crit.).

*Ixoreus naevius* Ridgway, Bull. U. S. Nat. Mus., 50, Part 4, p. 131, 1907—part; Brooks and Swarth, Pac. Coast Avifauna, 17, p. 123, 1925—British Columbia (crit.).

*Ixoreus naevius meruloides* Grinnell, Pac. Coast Avifauna, 11, p. 172, 1915 (winter range in California); Swarth, Univ. Calif. Pub. Zool., 24, p. 371, 1924—Stikine region, British Columbia; idem, l.c., 30, p. 145, 1926—Atlin region, British Columbia (transient).

**Range.**—Breeds in Hudsonian and Upper Canadian zones from the Yukon Delta, Kowak Valley, and Mackenzie Delta south to Prince William Sound, Alaska, the southern part of Mackenzie Valley, and south in mountains through eastern British Columbia to northwestern Montana and northeastern Oregon; winters mainly in the interior of California south to Los Angeles County and rarely to northern Lower California; casual on Guadalupe Island; accidental in Kansas, New Jersey, New York, Massachusetts, and Quebec.

5: Montana (Columbia Falls, 3); Alaska (Putnam River, 1); California (Palo Alto, 1).

### Genus **PLATYCICHLA** Baird

*Platycichla* Baird, Rev. Amer. Birds, 1, p. 32, July, 1864—type, by orig. desig., *Platycichla brevipes* Baird=*Turdus flavipes* Vieillot; idem, l.c., p. 436, June, 1866.

### \**Platycichla flavipes flavipes* (Vieillot). BRAZILIAN GRAY OUZEL.

*Turdus flavipes* Vieillot, Nouv. Dict. Hist. Nat., nouv. éd., 20, p. 277, 1818—"au Brésil"—Rio de Janeiro, coll. Delalande (descr. of adult male; type in Paris Museum examined); Spix, Av. Spec. Nov. Bras., 1, p. 69, pl. 67, fig. 2, 1824—Rio de Janeiro; Sclater, Proc. Zool. Soc. Lond., 27, p. 334, 1859—southeastern Brazil (monog.); idem, Cat. Coll. Amer. Bds., p. 6, 1862—Brazil; Pelzeln, Orn. Bras., 2, p. 94, 1868—Rio de Janeiro, Itararé (São Paulo), Curytiba (Paraná); Reinhardt, Vidensk. Medd. Naturhist. Foren., 1870, p. 449—Lagôa Santa (Minas Geraes), Nova Friburgo (Rio de Janeiro), Mogy das Cruzes (São Paulo); Pelzeln, Nunq. Otios., 2, p. 291, 1872—Nova Friburgo, Rio de Janeiro; idem, Ibis, 1873, p. 25—Christians' Isle; Sclater and Salvin, Nomencl. Av. Neotr., p. 2, 1873—part, Brazil; Berlepsch, Journ. Orn., 21, p. 230, 1873—Blumenau, Santa Catharina; Salvin, Cat. Strickl. Coll., p. 7, 1882—Bahia; Berlepsch and Ihering, Zeits. Ges. Orn., 2, p. 112, 1885—Taquara do Mundo Novo, Rio Grande do Sul; Boucard and Berlepsch, The Humming Bird, 2, p. 42, 1892—Porto Real, Rio de Janeiro.

*Turdus carbonarius* Lichtenstein, Verz. Doubl. Berl. Mus., p. 37, 1823—Bahia (descr. of male and female; types in Berlin Museum); Wied, Beitr. Naturg.

- Bras., 3, (2), p. 643, 1831—Cabo Frio and Rio de Janeiro; Burmeister, Syst. Uebers. Th. Bras., 3, p. 125, 1856—Rio de Janeiro and Nova Friburgo.
- Turdus ardosiacus* (not of Vieillot, 1822) Pucheran (ex Cuvier MS.), Arch. Mus. Hist. Nat. Paris, 7, p. 339, 1855—no locality stated (descr. of adult male).
- Turdus fuscus* (not of Gmelin, 1789) Pucheran (ex Cuvier MS.),<sup>1</sup> Arch. Mus. Hist. Nat. Paris, 7, p. 340, 1855—"Brésil" (descr. of adult female; type in Paris Museum examined).
- Turdus poecilopterus* (not of Vigors, 1831) Pucheran (ex Cuvier MS.),<sup>2</sup> Arch. Mus. Hist. Nat. Paris, 7, p. 34, 1855—no locality stated (the type examined in the Paris Museum was collected by Auguste de Saint-Hilaire in Brazil;=female in juvenile molt).
- Platycichla brevipes* Baird, Rev. Amer. Birds, 1, p. 32, July, 1864—Brazil (type in U. S. National Museum;=female in first annual plumage); Sharpe, Cat. Bds. Brit. Mus., 6, p. 379, 1881—Brazil (ex Baird); Stejneger, Proc. U. S. Nat. Mus., 5, pp. 479, 481, Feb., 1883 (crit.); Stone, Proc. Acad. Nat. Sci. Phila., 1899, p. 23.
- Turdus tephromelas* Bertoni, Anal. Cient. Parag., 1, p. 146, Jan., 1901—Alto Paraná, Paraguay (type in coll. of A. de W. Bertoni;=adult male); Arribáizaga, Anal. Mus. Nac. Hist. Nat. Buenos Aires, 7, p. 370, 1902 (crit.).
- Platycichla flavipes major* Sztolcman, Ann. Zool. Mus. Pol. Hist. Nat., 5, p. 182, Nov., 1926—"Therezina," Paraná (type in Warsaw Museum); idem and Domaniewski, l.c., 6, p. 154, 1927—Cará Pintada, Paraná (type locality corrected).
- Merula flavipes* Seebohm, Cat. Bds. Brit. Mus., 5, p. 253, 1881—Bahia to Santa Catharina (monog.); Sharpe, in Seebohm, Monog. Turd., 2, p. 81, pl. 102, 1900—Brazil (monog.); Ihering, Ann. Est. Rio Grande do Sul, 16, p. 116, 1899—Taquara, Rio Grande do Sul; idem, Rev. Mus. Paul., 3, p. 128, 1899—Ypiranga, São Paulo; idem, l.c., 4, p. 152, 1900—Cantagallo and Nova Friburgo; idem, l.c., 5, p. 291, 1902—Brazil (egg descr.); Miranda Ribeiro, Arch. Mus. Nac. Rio de Janeiro, 13, p. 185, 1906—Caminho do Couto, Itatiaya, Minas Geraes.
- Turdus flavipes flavipes* Hellmayr, Journ. Orn., 50, pp. 67, 68, 1902 (crit., range).
- Platycichla flavipes* Stejneger, Proc. U. S. Nat. Mus., 5, p. 481, 1883 (crit.); Ihering and Ihering, Cat. Faun. Braz., 1, p. 321, 1907—Ypiranga, Alto da Serra, Estação Rio Grande, and Guarulhos (São Paulo), and Itatiaya (Minas Geraes); Bertoni, Anal. Soc. Cient. Arg., 75, p. 95, 1913—Iguazú, Misiones; idem, Faun. Parag., p. 59, 1914—Puerto Bertoni, Paraguay, and Iguazú, Misiones; Pinto da Fonseca, Rev. Mus. Paul., 13, p. 789, 1922—São Paulo (habits); Miranda Ribeiro, Arch. Mus. Nac. Rio de Janeiro, 24, p. 254, 1923—Serra do Itatiaya.
- Platycichla (Merula) flavipes* Lüderwaldt, Zool. Jahrb. (Syst.), 27, p. 355, 1909—Itatiaya.

<sup>1</sup> *Turdus fuscus* Bonaparte (Compt. Rend. Acad. Sci. Paris, 38, p. 4, 1854; Not. Orn. Coll. Delattre, p. 28, 1854) is a nomen nudum.

<sup>2</sup> *Turdus poecilopterus* Bonaparte (Compt. Rend. Acad. Sci. Paris, 38, p. 4, 1854; Not. Orn. Coll. Delattre, p. 28, 1854) is a nomen nudum.



*Platycichla floripes* [sic] Werner, Mitt. Vogelw., 21, p. 50, 1922—Mount Araponga, near Blumenau, Santa Catharina.

*Platycichla flavipes flavipes* Hellmayr, Arch. Naturg., 90, A, Heft 2, p. 148, 1924 (range); Holt, Bull. Amer. Mus. N. H., 57, p. 312, 1928—Serra do Itatiaia.

*Range*.—Wooded region of southeastern Brazil, from southern Bahia to Rio Grande do Sul, and adjacent districts of Misiones and Paraguay.<sup>1</sup>

8: Brazil (Joinville, Santa Catharina, 8).

**\**Platycichla flavipes venezuelensis* (Sharpe).<sup>2</sup> VENEZUELAN GRAY OUZEL.**

*Merula venezuelensis* Sharpe, in Seebohm, Monog. Turd., 2, p. 83, 1900—"Venezuela" (the type—an adult male—examined in the British Museum was obtained by Señor Rojas, all of whose collecting was done in the vicinity of Caracas).

*Turdus flavipes* (not of Vieillot) Sclater and Salvin, Nomencl. Av. Neotr., p. 2, 1873—Venezuela (in part).

*Merula carbonaria* (not *Turdus carbonarius* Lichtenstein) Seebohm, Cat. Bds. Brit. Mus., 5, p. 253, 1881—part, Venezuela.

<sup>1</sup> A very satisfactory series from throughout its Brazilian range clearly proves that there is no difference between birds from Rio de Janeiro and Bahia (*flavipes*) on one side and those from the southern provinces (*major*) on the other. Size, as shown by the subjoined figures, varies a good deal within the same locality, and the supposed divergency in the coloration of the gray parts of the plumage is seen to be non-existent, when adequate series are compared.

**MEASUREMENTS OF ADULT MALES**

	Wing	Tail
Two from Bahia . . . . .	112, 119	93, 98
Six from Rio de Janeiro . . . . .	110, 111, 112, 112, 114, 117	89, 90, 90, 90, 93, 94
One from Espirito Santo . . . . .	113	92½
One from Paraná (Curytiba) . . . . .	117	93
Three from Santa Catharina . . . . .	116, 117, 117	90, 93, 93
Ten from Rio Grande do Sul . . . . .	108, 110, 110, 112, 112, 112, 113, 114, 116, 119	87, 88, 89, 90, 92, 92, 92, 93, 95, 98

*Material examined*.—Bahia: 3.—Espirito Santo: Braço do Sul, Victoria, 1.—Rio de Janeiro: Rio de Janeiro, 9.—São Paulo: Itararé, 1.—Paraná: Curitiba, 2.—Santa Catharina: Joinville, 8.—Rio Grande do Sul: Taquara do Mundo Novo, 14.

<sup>2</sup> *Platycichla flavipes venezuelensis* (Sharpe) is exceedingly close to *P. f. flavipes*, so close indeed that one would not think of maintaining it were it not for its widely separated range. Males do not appear to be distinguishable for certain, although the gray of the back and abdomen, as a rule, is somewhat duller, less bluish; but the females are paler throughout, with the upper parts more olivaceous (less brownish) and the lower belly more decidedly grayish.

Birds from Mérida and Tachira agree in every respect with a series from north-central Venezuela (Caracas and Aragua). Five skins from the Santa Marta region obviously belong here, too.

*Material examined*.—Dept. Federal: Galipán, Cerro del Avila, 2.—Aragua: Maracay, 14.—Mérida: Tabay, 2; El Valle, 4; Mérida, 20; Echisera, 1.—Tachira: Colón, 1; San Cristóbal, 1.—Colombia: Santa Marta region (Chirua, Pueblo Viejo, La Concepción), 5.—"Venezuela" (unspecified): one adult male (the type).

*Platycichla flavipes carbonaria* Bangs, Proc. Biol. Soc. Wash., 13, p. 108, 1900—Chirua, La Concepción, and San Miguel, Santa Marta; Allen, Bull. Amer. Mus. N. H., 13, p. 181, 1900—Santa Marta region (ex Bangs).

*Turdus flavipes venezuelensis* Hellmayr, Journ. Orn., 50, pp. 67, 68, 1902—part, Mérida, Venezuela.

*Platycichla flavipes venezuelensis* Todd and Carriker, Ann. Carnegie Mus., 14, p. 395, 1922—Las Vegas, Pueblo Viejo, and Chirua, Santa Marta region; Hellmayr, Arch. Naturg., 90, A, Heft 2, pp. 145, 148, 1924—Galipán, Cerro del Avila, Venezuela (crit., range).

**Range.**—Mountainous region of northern and western Venezuela, from Caracas west to Tachira, and northern Colombia (Santa Marta district).

18: Venezuela (Maracay, Aragua, 14; Tabay, Mérida, 2; Echisera, Mérida, 1; Colón, Tachira, 1).

**\**Platycichla flavipes polionota* (Sharpe).<sup>1</sup> RORAIMA OUZEL.**

*Merula polionota* Sharpe, in Seebohm, Monog. Turd., 2, p. 85, pl. 103, fig. 1, 1900—Roraima, British Guiana (type in British Museum examined).

*Turdus flavipes* (not of Vieillot) Salvin, Ibis, 1885, p. 198—Roraima.

<sup>1</sup> *Platycichla flavipes polionota* (Sharpe) is apparently dimorphic in the male sex. The "normal" type (*polionota*) resembles *P. f. venezuelensis* in having the black underneath restricted to the throat and upper breast, and the remainder of the belly, as well as the back, gray. The other "phase" is wholly black, either with distinct metallic glossy, though slightly more purplish edges to the feathers as in *P. f. leucops*, or with a faint silky sheen, more like *P. f. xanthoscelus*. These black individuals have been referred by Salvin and Sharpe to *P. leucops* and *P. xanthoscelus* respectively but their structural identity with the gray-backed, gray-bellied form (*polionota*), as well as the analogous variability of the allied *P. f. melanopleura*, render the supposition of their belonging to another species altogether unlikely. Females from the Roraima region are just as variable as those of the allied races, and I have failed to discover any character by which they could be distinguished from *venezuelensis*. In size, *P. f. polionota* is on average slightly larger.

**Material examined.**—British Guiana: Roraima, 21 (including one black male); Caramang River, 1 (black male); Merumé Mountains, 1 (black male in first annual plumage).

MEASUREMENTS OF ADULT MALES

<i>P. f. venezuelensis</i>	Wing	Tail
One from Galipán, Cerro del Avila .....	110	90
Eleven from Maracay, Aragua .....	106, 107, 108, 108, 109, 111, 111, 114, 114, 116, 118	86, 86, 87, 88, 90, 90, 92, 92, 94, 94
Twelve from Mérida .....	108, 108, 108, 110, 110, 112, 112, 113, 114, 114, 115, 115	86, 87, 88, 91, 92, 92, 93, 94, 95, 96, 96, 98
Two from Tachira .....	112, 112	88, 98
<i>P. f. polionota</i>		
Ten from Roraima .....	115, 116, 117, 118, 118, 118, 119, 120, 121, 123	92, 94, 94, 95, 95, 95, 95, 96, 98, 99
One (black) from Roraima .....	114	85
One (black) from Caramang River .....	113	89

*Turdus leucops* (not of Taczanowski) Salvin, Ibis, 1885, p. 199—Merumé Mountains and Roraima (crit.).

*Turdus flavipes venezuelensis* Hellmayr, Journ. Orn., 50, pp. 67, 68, 1902—part, Roraima.

*Merula xanthoscelus* (not *Turdus xanthoscelus* Jardine) Sharpe, in Seebohm, Monog. Turd., 2, p. 45, 1900—part, Merumé and Roraima Mountains.

*Platycichla venezuelensis* Chubb, Birds Brit. Guiana, 1, p. 376, 1921—Roraima.

*Planesticus leucops* Chubb, Birds Brit. Guiana, 2, p. 379, 1921—Caramang River and Roraima.

*Platycichla flavipes polionota* Hellmayr, Arch. Naturg., 90, A, Heft 2, p. 148, 1924—Roraima (crit.).

**Range.**—Subtropical zone of British Guiana (Roraima, Merumé Mountains, Caramang River).

1: British Guiana (Roraima, 1).

**\**Platycichla flavipes melanopleura* (Sharpe).<sup>1</sup> TRINIDAD GRAY OUZEL.**

*Merula melanopleura* Sharpe, in Seebohm, Monog. Turd., 2, p. 87, pl. 103, fig. 2, 1900—"Trinidad" (type in British Museum examined).

*Platycichla venezuelensis atra* Cory, Field Mus. Nat. Hist., Orn. Ser., 1, pp. 251, 255, 1909—Margarita Island, Venezuela (type in Field Museum).

<sup>1</sup> *Platycichla flavipes melanopleura* (Sharpe): Nearest to *P. f. venezuelensis*, but male with much more black in the body plumage, this color often extending over the entire ventral surface and leaving only the inner flanks and the tips of the under tail coverts gray, while the upper back is also frequently suffused or edged with black. Female not distinguishable with certainty.

As we have pointed out elsewhere (Arch. Naturg., 90, Heft 2, p. 148), it is undeniable that, in spite of considerable individual variation, the majority of the male Gray Ouzels from northeastern Venezuela and Trinidad are much blacker than those from the more western parts of Venezuela, although certain individuals are inseparable from specimens of *P. f. venezuelensis* with the maximum amount of black. This conclusion is corroborated by eight males from Margarita Island in Field Museum. Four or five correspond to the darkest variety of *melanopleura*, as represented by the type and one or two examples from Aripo, in having the under parts nearly wholly black and the upper back strongly suffused with the same color; two others resemble the average from Trinidad, while one, Field Museum No. 38776, with the black restricted to throat and breast and without any black beyond the hindneck, hardly differs from the darkest extreme in our series from Maracay, Aragua. The blackest Margarita birds cannot be told apart from certain gray-rumped individuals from Tobago (*xanthoscelus*). The occasional occurrence of entirely black males has given rise to the record of *xanthoscelus* from Trinidad. Such a specimen (with some albinistic feathers around the base of the bill) was shot by S. M. Klages on August 30, 1912, at Aripo (alt. 2,000 ft.), in company with normally colored males of *melanopleura*. The bird is just finishing its annual molt, and, although indistinguishable from the black Tobago variety, is unquestionably a native of Trinidad and not an immigrant from the neighboring island.

**Material examined.**—Trinidad: Aripo (alt. 2,000–2,400 ft.), 23; summit of hills between San Juan and Port of Spain, 1; unspecified, 3 (the type; male adult, Léotaud, 1863, Paris Museum; male, first annual plumage, E. C. Taylor, 1863, British Museum).—Venezuela: Sucre (Santa Ana, Los Palmales, San Antonio, Los dos Rios), 13; La Asunción, Margarita Island, 11.

*Turdus flavipes* (not of Vieillot) Lesson, Rev. Zool., 2, p. 137, 1839—Trinidad; Taylor, Ibis, 1864, p. 80—Trinidad; Léotaud, Ois. Trinidad, p. 199, 1866—Trinidad; Sclater and Salvin, Nomencl. Av. Neotr., p. 2, 1873—Venezuela (in part); Tristram, Cat. Coll. Bds., p. 126, 1889—"Bogotá (Goering) and Orinoco" (errore).

*Merula flavipes* Chapman, Bull. Amer. Mus. N. H., 6, p. 22, 1894—Trinidad.

*Merula carbonaria* (not *Turdus carbonarius* Lichtenstein) Seebohm, Cat. Bds. Brit. Mus., 5, p. 253, 1881—part, Trinidad.

*Platycichla carbonaria* Robinson, Proc. U. S. Nat. Mus., 18, p. 681, 1896—Margarita Island.

*Platycichla flavipes* Cherrie, Mus. Brookl. Inst., Sci. Bull., 1, p. 355, 1908—Aripo Heights, Trinidad.

*Turdus flavipes venezuelensis* (not *Merula venezuelensis* Sharpe) Hellmayr, Journ. Orn., 50, p. 68, 1902—part, "Cumaná" and Trinidad; idem, Nov. Zool., 13, p. 57, 1906 (crit., note on type).

*Platycichla flavipes melanopleura* Hellmayr, Arch. Naturg., 90, A, Heft 2, p. 148, 1924—Trinidad, Bermúdez, and Margarita Island.

*Turdus xanthoscelus* (not of Jardine) Léotaud, Ois. Trinidad, p. 201, 1866—Trinidad (one adult male); Hellmayr, Nov. Zool., 13, p. 57, 1906—part, Trinidad (ex Léotaud).

*Merula xanthoscelus* Chapman, Bull. Amer. Mus. N. H., 6, p. 22, 1894—Trinidad (ex Léotaud).

*Range*.—Trinidad and northeastern Venezuela (states of Monagas and Sucre, including Margarita Island).

11: Venezuela (La Asunción, Margarita Island, 11).

**\**Platycichla flavipes xanthoscelus* (Jardine).<sup>1</sup> TOBAGO BLACK OUZEL.**

*Turdus xanthoscelus* Jardine, Ann. Mag. Nat. Hist., 20, p. 329, 1847—Tobago (types, now in British Museum, examined); idem, Contrib. Orn., 1848, Illust. Orn., p. 14, pl. 1—Tobago; Hellmayr, Nov. Zool., 13, p. 57, 1906—part, Tobago (crit.).

*Turdus xanthoscelus* Sclater, Proc. Zool. Soc. Lond., 27, p. 334, 1859—Tobago (monog.); idem, Cat. Coll. Amer. Bds., p. 5, 1862—Tobago; Tristram, Cat. Coll. Bds., p. 129, 1889—Tobago.

*Turdus serranus* (not of Tschudi) Sclater and Salvin, Nomencl. Av. Neotrop., p. 2, 1873—part, Tobago.

*Merula xanthoscelus* Seebohm, Cat. Bds. Brit. Mus., 5, p. 240, 1881—Tobago (monog.); Cory, Auk, 10, p. 220, 1893—Tobago; Sharpe, in Seebohm,

<sup>1</sup> *Platycichla flavipes xanthoscelus* (Jardine): Very similar in the male sex to *P. f. melanopleura*, but generally wholly black. Specimens with a varying amount of gray on the rump and flanks are, however, not unfrequent, and certain unusually gray-rumped examples are completely matched by the darkest variety of *melanopleura*. Female exactly like that of *melanopleura*, varying to the same degree.

*Material examined*.—Tobago, 45.

Monog. Turd., 2, p. 45, 1900—part, Tobago; Dalmas, Mém. Soc. Zool. France, 13, p. 133, 1900—Tobago.

Range.—Island of Tobago.

5: Tobago.

### **Platycichla flavipes leucops (Taczanowski).<sup>1</sup> WHITE-EYED OUZEL.**

*Turdus leucops* Taczanowski, Proc. Zool. Soc. Lond., 1877, p. 331—Ropaybamba, Peru (type formerly in Warsaw Museum); idem, l.c., 1879, p. 221—Tambillo and Ambagay, Peru; Hartert, Nov. Zool., 5, p. 479, 1898—Paramba, Ecuador; Goodfellow, Ibis, 1901, p. 309—"Gualea"—Mindó, Ecuador (spec. in Tring Museum examined); Berlepsch and Stolzmann, Ornith., 13, pp. 74, 106, 1906—Idma, Urubamba (Prov. Convencion), Huaynapata and Rio Cadena, Marcapata, Dept. Cuzco; Chapman, Bull. Amer. Mus. N. H., 55, p. 579, 1926—Nanegal, Zamora, and San José de Sumaco, Ecuador.

*Turdus atroserriceus* (not of Lafresnaye) Pelzeln, Verh. Zool. Bot. Ges., 28, p. 18, 1878—"Rio Napo" (spec. in Vienna Museum examined).

*Merula leucops* Seeböhm, Cat. Bds. Brit. Mus., 5, p. 241, 1881—part (descr. of male and spec. b), "Quito"; Taczanowski, Orn. Pér., 1, p. 497, 1884—Ropaybamba, "Shanyin," Cutervo, and Tambillo, Peru; Sharpe, in Seeböhm, Monog. Turd., 2, p. 47, pl. 88, 1900—part (descr. of male), Pallatanga, Ecuador (monog.); Ménégau, Miss. Serv. Géogr. Armée Mes. Arc. Mérid. Equat., p. B 69, 1911—Pachijal, road to Esmeraldas, Ecuador.

*Planesticus leucops* Chapman, Bull. Amer. Mus. N. H., 36, p. 533, 1917—San Antonio, Rio Lima, and La Candela, Colombia.

Range.—Subtropical zone of Colombia (except Santa Marta region), Ecuador, and Peru south to Marcapata.

### **Genus CICHLOPSIS Cabanis<sup>2</sup>**

*Cichlopsis* Cabanis, Mus. Hein., 1, p. 54, "1850" [=October, 1851]—type, by orig. desig., *Cichlopsis leucogenys* Cabanis.

<sup>1</sup> *Platycichla flavipes leucops* (Taczanowski), whose generic affinities were for the first time recognized by Ridgway (Bull. U. S. Nat. Mus., 50, Part 4, p. 7 [note a], 1907) is closely related to *P. f. xanthoscelus*, but differs in the male sex by having conspicuous metallic greenish blue edges to the upper and under parts as well as to the wing feathers, whereas the Tobago bird is of a uniform silky black. The female is only distinguishable by much darker, bistre brown upper surface with the suggestion of glossy edges to the dorsal feathers. Birds from Ecuador appear to agree with those from Peru, while three males from Bogotá have a more bluish metallic gloss. Size is subject to considerable individual variation.

Material examined.—Peru: Cushi Libertad, Dept. Huánuco, 1; Chachapoyas, 1.—Ecuador: Mindó, 1; Paramba, 1; Zamora, 1.—Colombia: Bogotá, 3; La Candela, Huila, 1.

<sup>2</sup> *Turdampelis* Lesson (Echo du Monde Sav., 11, 2nd sem., No. 7, p. 156, 1844), sometimes quoted as a possible earlier name, has no relation whatever to this genus, and belongs to the Cotingidae. Cf. Hellmayr, Verh. Orn. Ges. Bay., 12, pp. 138–139, 1915, and Field Mus. Nat. Hist., Zool. Ser., 13, Part 6, pp. 156, 159, 1929.

*Myiocyclus* (Schiff MS.) Bonaparte, Compt. Rend. Acad. Sci. Paris, 38, p. 6, 1854—type, by monotypy, *Myiocyclus ochrata* (Schiff MS.) Bonaparte; idem, Not. Orn. Coll. Delattre, p. 30, 1854—same type.

***Cichlopsis leucogenys leucogenys* Cabanis. RUFIOUS-BROWN SOLITAIRE.**

*Cichlopsis leucogenys* Cabanis, Mus. Hein., 1, p. 54, "1850" [=October, 1851]—Brazil (type in Berlin Museum); Sharpe, Cat. Bds. Brit. Mus., 6, p. 378, 1881—Brazil; Hartert, Kat. Vogels. Mus. Frankfurt, p. 98, 1891—Brazil; Hellmayr, Verh. Orn. Ges. Bayern, 12, p. 127, 1915—Braço do Sul, Victoria, Espírito Santo (crit.).

*Myiadestes leucotis* (not *Ptilogonys leucotis* Tschudi) Bonaparte, Consp. Gen. Av., 1, p. 336, 1850—"Amer. mer. occ."

*Myiocyclus ochrata* (Schiff MS.) Bonaparte, Compt. Rend. Acad. Sci. Paris, 38, p. 6, 1854—Brazil (types in Frankfurt Museum examined); idem, Not. Orn. Coll. Delattre, p. 30, 1854—Brazil.

*Cichlopsis leucogenys* Selater, Proc. Zool. Soc. Lond., 25, p. 6, 1857 (note on a specimen in the collection of the Academy of Natural Sciences, Philadelphia); idem, l.c., 26, p. 542, 1858—Brazil (crit., monog.); idem, Cat. Coll. Amer. Bds., p. 48, 1862—Brazil; Baird, Rev. Amer. Birds, 1, p. 434, 1866—Brazil (monog.); Selater and Salvin, Exot. Orn., p. 37, pl. 19, 1867—Brazil.

*Turdampelis* (!) *leucogenys* Stejneger, Proc. U. S. Nat. Mus., 5, "1882," p. 482, Feb., 1883; Ihering and Ihering, Cat. Faun. Braz., 1, p. 320, 1907—Brazil.

*Cichlopsis* [sic] *leucogenys* Lima, Rev. Mus. Paul., 12, (2), p. 100, 1920—Ilhéos to Belmonte, southern Bahia.

**Range.**—Wooded region of southeastern Brazil, in states of Espírito Santo (Braço do Sul, Victoria) and Bahia (Ilhéos to Belmonte).<sup>1</sup>

***Cichlopsis leucogenys gularis* Salvin and Godman.<sup>2</sup> ORANGE-THROATED SOLITAIRE.**

*Cichlopsis gularis* Salvin and Godman, Ibis, (4), 6, p. 76, Jan., 1882—Merumé Mountains, British Guiana (type, now in British Museum, examined);

<sup>1</sup> *Material examined.*—Espírito Santo: Braço do Sul, Victoria, 2.—"Brazil" (unspecified), 3.

<sup>2</sup> *Cichlopsis leucogenys gularis* Salvin and Godman: Very similar to *C. l. leucogenys*, but with slenderer, more strongly ridged bill and somewhat shorter tail; upper parts generally darker, raw umber rather than Brussels brown; under tail coverts much deeper, ochraceous instead of buff; rufescent inner margin to remiges broader and more deeply cinnamonaceous. Wing, (male) 101–109, (female) 104–110; tail, 91–99, twice 101; bill, 15–16.

Two specimens of *C. l. leucogenys*, from Espírito Santo, measure: wing, (male) 108, (female) 105; tail, 104–106; bill, 15 mm.

*Material examined.*—British Guiana: Merumé Mountains (including the type), 2; Roraima, 5; Caramang River, 4.

Sharpe, Cat. Bds. Brit. Mus., 6, p. 378, "1881"<sup>1</sup>—British Guiana; Salvin, Ibis, 1885, p. 199—Merumé Mountains and Roraima; Hellmayr, Verh. Orn. Ges. Bayern, 12, p. 127, 1915—Merumé Mountains, Roraima, and Rio Caramang, British Guiana (crit.); Chubb, Birds Brit. Guiana, 2, p. 377, 1921—Merumé Mountains and Roraima; Chapman, Bull. Amer. Mus. N. H., 63, p. 109, 1931—same localities (crit.).

*Turdampelis* (!) *gularis* Stejneger, Proc. U. S. Nat. Mus., 5, "1882," p. 482, Feb., 1883.

**Range.**—British Guiana (Roraima, Merumé Mountains, Caramang River).

***Cichlopsis leucogenys peruvianus* Hellmayr.<sup>2</sup> PERUVIAN SOLITAIRE.**

*Cichlopsis leucogenys peruvianus* Hellmayr, Nov. Zool., 35, p. 265, 1930—Rio Perené, Dept. Junín, Peru (type in Tring Museum).

**Range.**—Tropical zone of central Peru (Rio Perené, Dept. Junín).

***Cichlopsis leucogenys chubbi* Chapman.<sup>3</sup> CHUBB'S SOLITAIRE.**

*Cichlopsis chubbi* Chapman, Amer. Mus. Nov., 138, p. 15, Oct., 1924—Mindo, Huila, Ecuador (type in the American Museum of Natural History, New York, examined); idem, Bull. Amer. Mus. N. H., 55, p. 577, pl. 29, 1926—Mindo; Berlioz, Bull. Mus. Hist. Nat. Paris, 34, p. 441, 1928—Huila, Ecuador (spec. in Paris Museum examined).

**Range.**—Tropical zone of western Ecuador (Mindo, Huila).

<sup>1</sup> Though dated "1881" on the title page, this volume obviously was issued early in 1882, the author's preface being signed "Dec. 26, 1881." Sharpe, in describing *C. gularis*, quoted "Ibis, 1882, January," but the omission of the page reference clearly indicates that the number of "The Ibis" was not published at the time of his writing. I have no means of ascertaining whether his or Salvin's and Godman's description has priority.

<sup>2</sup> *Cichlopsis leucogenys peruvianus* Hellmayr: Differs from *C. l. leucogenys* and *C. l. gularis* by the greater extent of the ochraceous-tawny gular area, which embraces the whole of the throat, while in the allied forms it is restricted to the middle portion, leaving the lateral parts dark brown like the malar region. The foreneck and chest are decidedly ochraceous brown (somewhat duller than antique brown), passing into Dresden brown on the sides, and paling into dull buff in a narrow zone along the abdominal line, whereas in *leucogenys* and *gularis* there is but a restricted zone of Brussels brown across the upper chest, the remainder being pale grayish, tinged with dull brownish laterally; the under tail coverts are much darker than in either, bright ochraceous-tawny. The markings on the sides of the head and the upper parts are about the same as in *C. l. leucogenys*. Wing, (male) 108; tail, 100; bill, 13½.

<sup>3</sup> *Cichlopsis leucogenys chubbi* Chapman: Nearest to *C. l. peruvianus*, but supraloral streak, orbital ring, throat, and foreneck much darker, chestnut hazel rather than ochraceous-tawny; auriculars darker rufous brown; breast much darker brownish; abdomen ochraceous-tawny instead of pale buff; upper parts duller, less ochraceous. Wing, 103–108; tail, 88–91; bill, 13½.

**Material examined.**—Western Ecuador: Mindo, 2; Huila, 1.

## Genus MYADESTES Swainson

*Myadestes*<sup>1</sup> Swainson, Natur. Libr., Orn., 10, (Flycatchers), p. 132, 1838—type, by monotypy, "*Myiodes*" *genibarbis* Swainson.

**\*Myadestes townsendi** (Audubon). TOWNSEND'S SOLITAIRE.

*Ptilogonys townsendi* Audubon, Birds Amer., folio ed., 4, pl. 419, fig. 2, 1838; idem, Orn. Biog., 5, p. 206, 1839—"near the Columbia River" (the precise locality is Fort George, near Astoria, Oregon; see Townsend, Narrative, p. 338, 1839) (type now in U. S. National Museum).

*Myadestes townsendii* Baird, Rev. Amer. Bds., 1, p. 429, 1866—mountainous regions of middle and western United States (monog.).

*Myiadectes townsendii* Sharpe, Cat. Bds. Brit. Mus., 6, p. 374, "1881"—middle and Pacific provinces of the United States (monog.).

*Myadestes townsendi* Miller, Bull. Amer. Mus. N. H., 22, p. 183, 1906—Cienaga de las Vacas, Durango; Ridgway, Bull. U. S. Nat. Mus., 50, Part 4, p. 163, 1907—mountain districts of North America from northwestern Mexico to Alaska (monog., full bibliog.); Grinnell, Univ. Calif. Pub. Zool., 32, p. 230, 1928—Lower California.

*Range*.—Western North America from central-eastern Alaska, southwestern Mackenzie, and western Alberta south to northern Mexico; straggler in Lower California, Texas, Kansas, Illinois, and even New York.

20: California (San Antonio Canyon, 1; Big Bear Valley, San Bernardino Mountains, 1; Mount Shasta, 1); Utah (Ogden City, 1); Colorado (Fort Lyon, 4; Boulder County, 1; Horsetooth Mountain, 1; Hot Sulphur Springs, 1); Arizona (Cochise County, 1); New Mexico (Santa Fé, 2); Texas (Ingram, Kerr County, 1); Mexico (thirty miles west of Miñaca, Chihuahua, 4; Sierra Bolaños, Jalisco, 1).

**\*Myadestes obscurus obscurus** Lafresnaye.<sup>2</sup> BROWN-BACKED SOLITAIRE.

*Myadestes obscurus* Lafresnaye, Rev. Zool., 2, p. 98, 1839—"Mexico," probably Vera Cruz (type now in Museum of Comparative Zoology, Cambridge, Mass.; cf. Bangs, Bull. Mus. Comp. Zool., 70, p. 325, 1930); Stejneger, Proc. U. S. Nat. Mus., 4, p. 371, 1882—Orizaba, Vera Cruz, and Volcan de Fuego, Guatemala (crit.).

*Myiadestes obscurus* Baird, Rev. Amer. Bds., 1, p. 430, 1866—part, Orizaba and Volcan de Fuego, Guatemala (monog.); Sclater and Salvin, Exot. Orn., p. 49, pl. 25, 1867—Mexico (excl. Tres Marias Islands and "Tonalá, Chiapas"—Jalisco) and Guatemala; Chapman, Bull. Amer. Mus. N. H., 10, p. 21, 1898—Jalapa, Mexico (habits).

<sup>1</sup> Various "emended" to *Myiodes*, *Myiadestes*, *Myiastes*, *Myiadectes*, and *Myiodes*.

<sup>2</sup> About the geographical variation of the species, cf. Griscom, Bull. Amer. Mus. N. H., 64, pp. 303–304, 1932.



*Myiadectes obscurus* Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 40, 1879—part, Mexico (excl. Tres Marias Islands, Tonila, and Jalisco); Sharpe, Cat. Bds. Brit. Mus., 6, p. 373, "1881"—part, Mexico (excl. Tres Marias Islands) and Guatemala.

*Myadestes obscurus obscurus* Ridgway, Bull. U. S. Nat. Mus., 50, Part 4, p. 166, 1907—eastern Mexico and Guatemala (monog., full bibliog.).

*Myadestes obscurus occidentalis* (not of Stejneger) Phillips, Auk, 28, p. 80, 1911—Montelunga, Realito, and Santa Leonor, Tamaulipas.

**Range.**—Highlands of eastern Mexico (in states of Nuevo Leon, Hidalgo, Tamaulipas, Vera Cruz, Pueblo, Morelos, Guerrero, Oaxaca, and Chiapas) and Guatemala.

4: Mexico (Jalapa, 1; unspecified, 1); Guatemala (Santa Maria, near Quezaltenango, 2).

***Myadestes obscurus oberholseri* Dickey and van Rossem.<sup>1</sup>  
OBERHOLSER'S SOLITAIRE.**

*Myadestes obscurus oberholseri* Dickey and van Rossem, Proc. Biol. Soc. Wash., 38, p. 133, 1925—Volcan de San Rafael, El Salvador (type in coll. of Donald R. Dickey, Pasadena, California).

**Range.**—Highlands of El Salvador.

**\**Myadestes obscurus occidentalis* Stejneger. JALISCAN  
SOLITAIRE.**

*Myadestes obscurus* var. *occidentalis* Stejneger, Proc. U. S. Nat. Mus., 4, pp. 371, 372, 1882—Tonila, Jalisco (type in U. S. National Museum).

*Myadestes obscurus cinereus* Nelson, Proc. Biol. Soc. Wash., 13, p. 30, 1899—mountains near Alamos, Sonora (type in U. S. National Museum).

*Myiadestes obscurus* (not of Lafresnaye) Baird, Rev. Amer. Bds., 1, p. 430, 1866—part, Tonila, Jalisco.

*Myiadestes obscurus* Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 40, 1879—part, Tonila, Jalisco; Lawrence, Mem. Bost. Soc. N. H., 2, p. 273, 1874—part, Tonila, Jalisco.

*Myadestes obscurus occidentalis* Jouy, Proc. U. S. Nat. Mus., 16, p. 774, 1894—San Marcos, Jalisco (crit., song); Ridgway, Bull. U. S. Nat. Mus., 50, Part 4, p. 168, 1907—part, western Mexico (monog., full bibliog.).

**Range.**—Western Mexico, in states of Sonora, Sinaloa, Chihuahua, Jalisco, Colima, Michoacan, Morelos, and western Oaxaca.

1: Mexico (Sierra Nevada de Colima, 1).

<sup>1</sup> *Myadestes obscurus oberholseri* Dickey and van Rossem is described as being similar in coloration to *M. o. obscurus*, but smaller (wing of male, 97–99; tail, 92–93; bill, 15.3–16).

This form, with which we are not acquainted, is only known from two males in the Dickey Collection. The authors suggest that its range may extend north through western Guatemala into Chiapas. However, two adult males from near Quezaltenango (August) are decidedly larger (wing, 103, 104; tail, 101) and seem to be inseparable from typical *obscurus*.

**Myadestes obscurus insularis Stejneger.<sup>1</sup> TRES MARIAS SOLITAIRE.**

*Myadestes obscurus* var. *insularis* Stejneger, Proc. U. S. Nat. Mus., 4, pp. 371, 373, 1882—Tres Marias Islands (type in U. S. National Museum).

*Myiadeses obscurus* (not of Lafresnaye) Baird, Rev. Amer. Bds., 1, p. 430, 1866—part, Tres Marias Islands; Selater and Salvin, Exot. Orn., p. 49, 1867—part, Tres Marias Islands; Grayson, Proc. Bost. Soc. N. H., 14, p. 277, 1871—Tres Marias; Lawrence, Mem. Bost. Soc. N. H., 2, p. 273, 1874—part, Tres Marias; Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 40, 1879—part, Tres Marias; Sharpe, Cat. Bds. Brit. Mus., 6, p. 373, "1881"—part, Tres Marias.

*Myadestes obscurus insularis* Nelson, N. Amer. Fauna, 14, p. 59, 1899—Maria Madre Island (crit., habits).

*Myadestes obscurus occidentalis* Ridgway, Bull. U. S. Nat. Mus., 50, Part 4, p. 168, 1907—part, Tres Marias Islands.

*Range.*—Tres Marias Islands, off Mexico.

**\*Myadestes elisabeth elisabeth (Lembeye). CUBAN SOLITAIRE.**

*Musicapa elisabeth* Lembeye, Av. Isl. Cuba, p. 39, pl. 5, fig. 3, 1850—Cuba.

*Myiadeses elisabeth* Gundlach [and Cabanis], Journ. Orn., 4, p. 2, 1856—part, western Cuba (habits); idem, Ann. Lyc. Nat. Hist. N. Y., 6, p. 271, 1858—Cuba (crit., descr.); idem, Journ. Orn., 20, p. 428, 1872—Cuba (habits); idem, Orn. Cub., p. 79, 1873—Cuba; Baird, Rev. Amer. Bds., 1, p. 425, 1866—Donna del Gate and Monte Libano, Cuba.

*Myiadeses elisabethae* Albrecht, Journ. Orn., 9, p. 209, 1861—Cuba.

*Myiadeses elizabethae* Selater and Salvin, Exot. Orn., p. 55, pl. 28, 1867—Cuba.

*Myiadeses elizabethae* Sharpe, Cat. Bds. Brit. Mus., 6, p. 372, "1881"—Cuba (monog.).

*Myadestes elisabeth* Stejneger, Proc. U. S. Nat. Mus., 5, p. 26, 1882—Cuba (descr. juv.); Ridgway, Bull. U. S. Nat. Mus., 50, Part 4, p. 172, 1907—Cuba (monog.).

*Myiadeses elizabeth* Cory, Auk, 3, p. 13, 1886—Cuba (monog.); idem, Bds. West Ind., p. 27, 1889—Cuba (monog.).

*Myiadeses elizabeth elizabeth* Barbour, Mem. Nutt. Orn. Cl., 6, p. 102, 1923—Cuba (crit.).

*Range.*—Island of Cuba, Greater Antilles.

2: Cuba (San Cristóbal, 1; unspecified, 1).

**Myadestes elisabeth retrusus Bangs and Zappey.<sup>2</sup> ISLE OF PINES SOLITAIRE.**

*Myadestes elizabeth retrusus* Bangs and Zappey, Amer. Nat., 39, p. 208, 1905—Pasadita, Isle of Pines, near Cuba (type in Museum of Comparative Zool.

<sup>1</sup> *Myadestes o. insularis*, while closely similar to *M. o. occidentalis*, nevertheless seems to be separable by slightly smaller size and paler under parts.

<sup>2</sup> Known from a single specimen, this race has been questioned as to its validity. We have no material from the Isle of Pines.

ogy, Cambridge, Mass.); Bangs, Bull. Mus. Comp. Zool., 70, p. 325, 1930—Isle of Pines.

*Myadestes elisabeth retrusus* Ridgway, Bull. U. S. Nat. Mus., 50, Part 4, p. 173, 1907—Isle of Pines (monog.).

*Myiades elisabeth* (not *Muscicapa elisabeth* Lembeye) Gundlach [and Cabanis], Journ. Orn., 4, p. 2, 1856—part, Isle of Pines.

*Myadestes elisabeth* Todd, Ann. Carnegie Mus., 11, p. 252, 1916—Isle of Pines (crit.).

*Range*.—Isle of Pines, near Cuba.

**\**Myadestes genibarbis solitarius* Baird. JAMAICAN SOLITAIRE.**

*Myiades solitarius* Baird, Rev. Amer. Bds., 1, p. 421, 1866—Jamaica [viz., Port Royal Mountains] (type in U. S. National Museum); Cory, Auk, 3, p. 13, 1886—Jamaica (monog.); idem, Bds. West Ind., p. 27, 1889—Jamaica (monog.); Danforth, Auk, 45, p. 489, 1928—Jamaica.

*Muscicapa armillata* (not of Vieillot<sup>1</sup>) Gosse, Bds. Jamaica, p. 198, 1847—part, Jamaica (habits, song).

*Ptilogonys armillatus* Gray and Mitchell, Genera of Birds, 1, pl. 69, 1846.

*Myiades armillatus* March, Proc. Acad. Nat. Sci. Phila., 1863, p. 294—Jamaica (habits).

*Myiadectes solitarius* Sharpe, Cat. Bds. Brit. Mus., 6, p. 369, "1881"—Jamaica (monog.).

*Myadestes solitarius* Stejneger, Proc. U. S. Nat. Mus., 5, p. 24, pl. 2, fig. 2, 1882—Port Royal Mountains, Jamaica (monog.); Scott, Auk, 10, p. 341, 1893—Priestman's River, Jamaica; Ridgway, Bull. U. S. Nat. Mus., 50, Part 4, p. 174, 1907—part, Jamaica (monog.); Bangs and Kennard, Handb. Jamaica, p. — [Sep., p. 12], 1920—part, Jamaica.

*Range*.—Island of Jamaica, Greater Antilles.

5: Jamaica (St. Georges, Portland, 2; St. Andrew, 1; Priestman's River, 1; unspecified, 1).

**\**Myadestes genibarbis montanus* Cory.<sup>2</sup> HAITIAN SOLITAIRE.**

*Myiades montanus* Cory, Bull. Nutt. Orn. Cl., 6, p. 130, 1881—Haiti (type in Field Museum); idem, l.c., p. 151, 1881—type locality stated to be Fort Jacques; idem, Auk, 3, p. 12, 1886—Haiti (monog.); idem, Bds. Haiti

<sup>1</sup> *Muscicapa armillata* Vieillot (Ois. Amér. Sept., 1, p. 69, pl. 42, 1807—"Antilles"; Nouv. Dict. Hist. Nat., nouv. éd., 21, p. 448, 1818—Martinique) is an unidentifiable species. In general, the figure looks very much like the Martinique Solitaire, but differs by having the thighs yellow and the upper as well as the lower eyelid white. No *Myadestes* answering this description has ever been found since, and it is probable that *M. armillata* was based upon an artifact. The type, which was in Vieillot's private collection, appears to be lost. Cf. Stejneger, Proc. U. S. Nat. Mus., 5, p. 25, 1882.

<sup>2</sup> I have no doubt whatever that there is only one form of Solitaire on the island of Haiti, although the type of *M. montanus*, from Port Jacques, had been referred to the Jamaican *M. g. solitarius*. Cory's type specimen agrees with those from the eastern part of the island in dimensions (wing, 87; tail, 87), in the pale gray tone of the under parts, in the ochraceous-tawny of the crissum extending

and San Dom., p. 52 (col. pl.), 1885—Haiti; idem, Bds. West Ind., p. 26, 1889—Haiti; Bond, Proc. Acad. Nat. Sci. Phila., 80, p. 521, 1928—Haiti (crit.).

*Myiadectes montanus* Sharpe, Cat. Bds. Brit. Mus., 6, p. 370, "1881"—Santo Domingo.

*Myadestes montanus* Stejneger, Proc. U. S. Nat. Mus., 5, p. 23, pl. 2, fig. 1, 1882—Fort Jacques, Haiti; Cherrie, Field Columb. Mus., Orn. Ser., 1, p. 9, 1896—Catare and Aguacate, Santo Domingo (habits, crit.); Verrill and Verrill, Proc. Acad. Nat. Sci. Phila., 61, p. 366, 1909—Sánchez and Miranda, Santo Domingo.

*Myadestes genibarbis cherriei* Ridgway, Smiths. Misc. Coll., 47, p. 112, 1904—Catare, Santo Domingo (type in Field Museum); idem, Bull. U. S. Nat. Mus., 50, Part 4, p. 177, 1907—Haiti.

*Myadestes solitarius* (not of Baird) Ridgway, Bull. U. S. Nat. Mus., 50, Part 4, p. 174, 1907—part, western portion of Haiti (Fort Jacques).

*Myiadestes genibarbis cherriei* Bond, Proc. Acad. Nat. Sci. Phila., 80, p. 509, 1928—mountains of Haiti; Moltoni, Atti Soc. Ital. Sci. Nat., 68, p. 321, 1929—Monte Viejo, Haiti.

*Myadestes genibarbis montanus* Wetmore and Swales, Bull. U. S. Nat. Mus., 155, p. 341, 1931—Haiti (crit., habits).

*Range.*—Island of Haiti, Greater Antilles.

11: Haiti (Fort Jacques, Haiti, 1; Catare, Santo Domingo, 3; Aguacate, Santo Domingo, 7).

**\*Myadestes genibarbis dominicanus Stejneger. DOMINICAN SOLITAIRE.**

*Myadestes dominicanus* Stejneger, Proc. U. S. Nat. Mus., 5, p. 22, pl. 2, fig. 5, 1882—Dominica (type in U. S. National Museum); Verrill and Verrill, Trans. Connecticut Acad. Sci., 8, p. 344, 1892—Dominica (habits, nests, and eggs).

*Myadestes genibarbis* (not of Swainson) Lawrence, Proc. U. S. Nat. Mus., 1, p. 53, 1878—Dominica (crit.); idem, l.c., 1, p. 486, 1879—part, Dominica.

*Myiadectes genibarbis* Sharpe, Cat. Bds. Brit. Mus., 6, p. 370, "1881"—part, Dominica.

*Myiadestes dominicanus* Cory, Auk, 3, p. 11, 1886—Dominica (monog.); idem, Bds. West Ind., p. 25, 1889—Dominica; Sclater, Proc. Zool. Soc. Lond., 1889, p. 326—Dominica.

*Myadestes genibarbis dominicanus* Ridgway, Bull. U. S. Nat. Mus., 50, Part 4, p. 177, 1907—Dominica (monog.).

up to the middle of the abdomen, and in the white-streaked auriculars. The only divergencies that I can see are the ochraceous instead of white chin and malar spot. An adult male from Aguacate, however, closely approaches the type in this respect, and similar variation is observable in the allied *M. g. genibarbis* from Martinique. Unless other differences be found to exist between birds from Haiti and Santo Domingo, a question that cannot be settled without an adequate series from the western republic, *montanus* will have to be accepted as the earliest term for the Haitian Solitaire. Since this was written, Wetmore and Swales also came to the conclusion that there is only one form on the island of Haiti.

*Myiadestes genibarbis dominicanus* Bond, Proc. Acad. Nat. Sci. Phila., **80**, p. 537, 1928—Dominica.

*Range*.—Island of Dominica, Lesser Antilles.

9: Dominica.

**\*Myadestes genibarbis genibarbis Swainson. MARTINIQUE SOLITAIRE.**

*Myidestes* [sic] *genibarbis* Swainson, Natur. Libr., Orn., **10**, (Flycatchers), p. 134, pl. 13, 1838—"Africa or India" (type in Cambridge Museum, England).

*Myiadestes genibarbis* Lawrence, Proc. U. S. Nat. Mus., **1**, p. 352, 1879—Martinique; idem, l.c., **1**, p. 486, 1879—part, Martinique; Cory, Auk, **3**, p. 10, 1886—Martinique (monog.); idem, l.c., **4**, p. 95, 1887—Martinique; idem, Bds. West Ind., p. 24, 1889—Martinique (monog.).

*Myiadectes genibarbis* Sharpe, Cat. Bds. Brit. Mus., **6**, p. 370, "1881"—part, Martinique.

*Myadestes genibarbis* Stejneger, Proc. U. S. Nat. Mus., **5**, p. 18, pl. 2, fig. 3, 1882—Martinique (monog.).

*Myadestes genibarbis genibarbis* Ridgway, Bull. U. S. Nat. Mus., **50**, Part 4, p. 175, 1907—Martinique (monog.).

*Myiadestes genibarbis genibarbis* Peters, Auk, **43**, p. 430, 1926—Martinique.

*Range*.—Island of Martinique, Lesser Antilles.

12: Martinique.

**\*Myadestes genibarbis sanctae-luciae Stejneger. SANTA LUCIA SOLITAIRE.**

*Myadestes sanctae-luciae* Stejneger, Proc. U. S. Nat. Mus., **5**, p. 20, pl. 2, fig. 4, 1882—Santa Lucia (type in Museum of Comparative Zoology, Cambridge, Mass.).

*Myiadestes genibarbis* (not of Swainson) Sclater, Proc. Zool. Soc. Lond., 1871, p. 269—Santa Lucia (crit.);<sup>1</sup> Semper, l.c., 1872, p. 649—Santa Lucia (habits); Allen, Bull. Nutt. Orn. Cl., **5**, p. 166, 1880—Santa Lucia.

*Myiadectes genibarbis* Sharpe, Cat. Bds. Brit. Mus., **6**, p. 370, "1881"—part, Santa Lucia.

*Myiadestes sanctae-luciae* Cory, Auk, **3**, p. 11, 1886—Santa Lucia (monog.); idem, Ibis, 1886, p. 475—Santa Lucia; idem, Bds. West Ind., p. 25, 1889—Santa Lucia (monog.); Sclater, Proc. Zool. Soc. Lond., 1889, p. 394—Santa Lucia.

*Myadestes genibarbis sanctae-luciae* Ridgway, Bull. U. S. Nat. Mus., **50**, Part 4, p. 176, 1907—Santa Lucia (monog.).

<sup>1</sup> Although Sclater claims the Santa Lucia specimens to be identical with two examples (presumably the types) of *M. genibarbis* in the Swainson Collection, it is much more likely, as pointed out by Stejneger (Proc. U. S. Nat. Mus., **5**, p. 20, 1882) that Swainson's types originated from Martinique. If still extant, they should be carefully reexamined.

*Myiadestes genibarbis sanctae-luciae* Peters, Auk, 43, p. 431, 1926—Santa Lucia; Bond, Proc. Acad. Nat. Sci. Phila., 80, p. 538, 1928—Santa Lucia.

*Range*.—Island of Santa Lucia, Lesser Antilles.

8: Santa Lucia.

**\*Myiadestes genibarbis sibilans** Lawrence. SAINT VINCENT SOLITAIRE.

*Myiadestes sibilans* Lawrence, Ann. N. Y. Acad. Sci., 1, p. 147, 1878—St. Vincent, Lesser Antilles (type in U. S. National Museum); idem, Proc. U. S. Nat. Mus., 1, p. 188, 1878—St. Vincent (habits); idem, l.c., 1, p. 486, 1879—St. Vincent; Lister, Ibis, 1880, p. 39—St. Vincent; Cory, Auk, 3, p. 9, 1886—St. Vincent (monog.); idem, Ibis, 1886, p. 472—St. Vincent; idem, Bds. W. Ind., p. 23, 1889—St. Vincent; Lowe, Ibis, 1909, p. 308—St. Vincent.

*Myiadestes sibilans* Sharpe, Cat. Bds. Brit. Mus., 6, p. 371, "1881"—St. Vincent (monog.).

*Myiadestes sibilans* Stejneger, Proc. U. S. Nat. Mus., 5, p. 17, pl. 2, fig. 6, 1882—St. Vincent (monog.); Clark, Proc. Bost. Soc. N. H., 32, pp. 218, 298, 1905—St. Vincent; Ridgway, Bull. U. S. Nat. Mus., 50, Part 4, p. 179, 1907—St. Vincent (monog.).

*Myiadestes genibarbis sibilans* [sic] Peters, Auk, 43, p. 431, 1926—Grand Bonhomme, St. Vincent.

*Myiadestes genibarbis sibilans* Bond, Proc. Acad. Nat. Sci. Phila., 80, p. 538, 1928—St. Vincent.

*Range*.—Island of St. Vincent, Lesser Antilles.

4: St. Vincent.

**\*Myiadestes ralloides ralloides** (d'Orbigny). ANDEAN SOLITAIRE.

*Muscipeta ralloides* d'Orbigny, Voy. Amér. Mérid., 4, Part 3, Ois., p. 322, 1840—Chulumani, Prov. Yungas, east side of the Cordilleras, Bolivia (type in Paris Museum).

*Ptilogonys griseiventer* Tschudi, Arch. Naturg., 10, (1), p. 270, 1844—Peru; idem, Faun. Peru., Aves, p. 140, 1846—Peru, under 14° S. latitude (type in Neuchâtel Museum).

*Muscipeta armillata* (not *Muscicapa armillata* Vieillot, 1807) Lafresnaye and d'Orbigny, Syn. Av., 1, in Mag. Zool., 7, cl. 2, p. 48, 1837—Yungas, Bolivia.

*Myiadestes ralloides* Sclater and Salvin, Exot. Orn., p. 53, 1867—part, Peru and Bolivia; idem, Proc. Zool. Soc. Lond., 1873, p. 185—Cosnipata, Peru; idem, l.c., 1879, p. 592—Chulumani, Guanai, and Tilotilo, Bolivia; Taczanowski, Orn. Pér., 1, p. 454, 1884—Pangoa, Dept. Junín, and Cosnipata, Dept. Cuzco; Berlepsch and Stolzmann, Proc. Zool. Soc. Lond., 1896, p. 327—Garita del Sol, Peru; idem, Ornith., 13, p. 106, 1906—Huaynapata, Marcapata, Peru.

*Myiadestes ralloides* Sharpe, Cat. Bds. Brit. Mus., 6, p. 375, "1881"—part.

*Myiadestes ralloides ralloides* Hellmayr, Nov. Zool., 32, p. 30, 1925—Bolivia and Peru (Santo Domingo, Marcapata, and Cumpang).

*Myadestes ralloides ralloides* Zimmer, Field Mus. Nat. Hist., Zool. Ser., 17, p. 402, 1930—Chinchao, Dept. Huánuco, Peru.

*Range*.—Subtropical zone of Peru and western Bolivia (Yungas of La Paz).<sup>1</sup>

1: Peru (Chinchao, Dept. Huánuco, 1).

**\**Myadestes ralloides plumbeiceps* Hellmayr.<sup>2</sup> GRAY-CROWNED SOLITAIRE.**

*Myadestes ralloides plumbeiceps* Hellmayr, Anz. Orn. Ges. Bay., No. 4, p. 27, 1921—Siató, Rio Siató, near Pueblo Rico, Chocó, western Colombia (type in Munich Museum); Chapman, Bull. Amer. Mus. N. H., 55, p. 578, 1926—Gualea, Zaruma, and Alamor, Ecuador.

*Myadestes venezuelensis* (not of Sclater, 1856) Sclater, Proc. Zool. Soc. Lond., 28, p. 64, 1860—Pallatanga; idem, Cat. Coll. Amer. Bds., p. 48, 1862—part, spec. a, b, d, Pallatanga, Ecuador.

*Myadestes ralloides* (not of d'Orbigny) Sclater and Salvin, Exot. Orn., p. 53, pl. 27, fig. inf., 1867—part, Pallatanga, Ecuador; idem, Proc. Zool. Soc. Lond., 1879, p. 492—Retiro, Medellín, and Santa Elena, west slope of central Andes, and Concordia, Cauca, east slope of western Andes, Colombia (eggs descr.); Goodfellow, Ibis, 1901, p. 311—Milligalli, Gualea, and Mindo, Ecuador.

*Myiadectes ralloides* Sharpe, Cat. Bds. Brit. Mus., 6, p. 375, "1881"—part.

*Myadestes ralloides* Hellmayr, Proc. Zool. Soc. Lond., 1911, p. 1887—Siató, near Pueblo Rico, western Andes.

*Myadestes ralloides venezuelensis* Chapman, Bull. Amer. Mus. N. H., 36, p. 532, 1917—part, San Antonio, western Andes, and Miraflores, Santa Elena, El Eden, and La Candela, central Andes, Colombia.

*Myadestes ralloides plumbeiceps* Lönnberg and Rendahl, Ark. Zool., 14, No. 25, p. 77, 1922—Mindó, Ecuador.

*Range*.—Subtropical zone of western Ecuador and western and central Andes of Colombia.

1: Colombia (San Antonio, western Andes, 1).

<sup>1</sup> The few Peruvian birds we have seen appear to be inseparable from Bolivian skins.

*Material examined*.—Bolivia, Yungas of La Paz: Chaco, 1; Songo, 1.—Peru: Santo Domingo, Marcapata, 1; Chinchao, Huánuco, 1; Cumpang, east of Taya-bamba, Dept. Libertad, 1.

<sup>2</sup> *Myadestes ralloides plumbeiceps* Hellmayr: Differs from *M. r. ralloides* by much brighter and richer, tawny instead of olivaceous, upper parts, partly or entirely gray pileum, and basally dark yellow (instead of wholly dusky) lower mandible.

Birds from Ecuador generally have the sides of the head darker gray and the hind crown more tinged with brownish, but the divergency is insignificant, though indicating an approach to *M. r. ralloides*.

*Material examined*.—Colombia: Siató, near Pueblo Rico, 2; San Antonio, 2; Antioquia, 2.—Ecuador: Milligalli, 1; Gualea, 3; Intac, 1.

**\*Myadestes ralloides venezuelensis** Scater.<sup>1</sup> VENEZUELAN SOLITAIRE.

*Myadestes venezuelensis* Scater, Ann. Mag. Nat. Hist., (2), 17, p. 468, June, 1856—vicinity of Caracas, Venezuela (type in Paris Museum examined); idem, Cat. Coll. Amer. Bds., p. 48, 1862—part, spec. c, Bogotá; Baird, Rev. Amer. Bds., 1, p. 427, 1866—"Puerto Cabello," Venezuela, and Bogotá.

*Myadestes ralloides* (not of d'Orbigny) Scater and Salvin, Exot. Orn., p. 53, pl. 27, fig. sup., 1867—part, Caracas and Bogotá; idem, Proc. Zool. Soc. Lond., 1875, p. 234—Mérida; Taczanowski and Berlepsch, l.c., 1885, p. 71—Mapoto, eastern Ecuador.

*Myiadectes ralloides* Sharpe, Cat. Bds. Brit. Mus., 6, p. 375, "1881"—part, descr. and hab., Venezuela (San Esteban, Caracas).

*Myadestes ralloides* Hellmayr and Seilern, Arch. Naturg., 78, A, Heft 5, p. 39, 1912—Cumbre de Valencia, Venezuela.

*Myadestes ralloides venezuelensis* Chapman, Bull. Amer. Mus. N. H., 36, p. 532, 1917—part, Fusugasugá and Bogotá, eastern Andes, and Mérida.

*Myadestes ralloides venezuelensis* Hellmayr, Arch. Naturg., 90, A, Heft 2, p. 149, 1924—Galipán, Cerro del Avila, Venezuela (crit.); Chapman, Bull. Amer. Mus. N. H., 55, p. 578, 1926—Sabanilla, near Macas, below Oyacachi, and lower Sumaco, eastern Ecuador.

**Range.**—Subtropical zone of northern Venezuela, from Caracas to Mérida, eastern Andes of Colombia, and eastern Ecuador.

1: Colombia (Bogotá, 1).

**Myadestes ralloides coloratus** Nelson.<sup>2</sup> VARIED SOLITAIRE.

*Myadestes coloratus* Nelson, Smiths. Misc. Coll., 60, No. 3, p. 23, 1912—Mount Pirri (alt. 5,000 ft.), near head of Rio Limón, eastern Panama (type in U. S. National Museum); Griscom, Bull. Mus. Comp. Zool., 69, p. 182, 1929—Cana, Panama.

<sup>1</sup> *Myadestes ralloides venezuelensis* Scater: Nearest to *M. r. plumbeiceps* and agreeing in rich tawny coloration of the upper parts, but pileum (except for some grayish admixture on forehead) warm Dresden brown; sides of the head darker gray; lower mandible wholly yellow.

Bogotá specimens are identical with those from Venezuela.

**Material examined.**—Venezuela: Galipán, Cerro del Avila, Dept. Federal, 1; Cumbre de Valencia, Carabobo, 10; hills near Bucarito, Tocuyo, Lara, 2; Andes of Mérida, 3.—Colombia: Bogotá, 6.

<sup>2</sup> *Myadestes ralloides coloratus* Nelson is exactly intermediate between *M. ralloides* and *M. melanops*, and clearly proves their conspecific relationship. It combines the black facial mask, the wholly yellow bill, and the black tail (with the light apical portion of the outermost rectrix grayish and ill-defined) of *M. melanops* with the rufous brown back and the paler gray under parts with brownish-suffused flanks of *M. ralloides venezuelensis*. The coloration of the wings is between the two forms, the six or seven outer primaries, alula, and primary coverts being black as in *melanops*, while the tertials and the outer margins to the remaining remiges are rufescent brown as in *venezuelensis*. The neutral gray pileum, while lighter and more uniform in tone, indicates an approach to the west Colombian *M. r. plumbeiceps*. Wing, 88–91, (female) 85–88; tail, 78–83; bill, 12–12½.

**Material examined.**—Panama: Mount Pirri, 6.



*Range*.—Subtropical zone of eastern Panama (Mount Pirri and Cana).

**\*Myadestes ralloides melanops** Salvin. BLACK-FACED SOLITAIRE.

*Myiadestes melanops* Salvin, Proc. Zool. Soc. Lond., "1864," p. 580, pl. 36, pub. Apr. 1, 1865—Tucurrique, Costa Rica (type in Salvin-Godman Collection, now in British Museum); idem, l.c., 1870, p. 180—Calovévora and Cordillera del Chucú, Veragua; Baird, Rev. Amer. Bds., 1, p. 426, 1866—Dota Mountains and Rancho Redondo, Costa Rica (monog.); Lawrence, Ann. Lyc. Nat. Hist. N. Y., 9, p. 97, 1868—La Palma, San José, and Navarro, Costa Rica; Frantzius, Journ. Orn., 17, p. 296, 1869—Costa Rica (habits); Boucard, Proc. Zool. Soc. Lond., 1878, p. 51—Navarro, Costa Rica (song).

*Myiadectes melanops* Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 42, 1879—Costa Rica; Sharpe, Cat. Bds. Brit. Mus., 6, p. 376, "1881"—Calovévora and Costa Rica (monog.).

*Myadestes melanops* Zeledón, An. Mus. Nac. Costa Rica, 1, p. 104, 1887—Naranjo de Cartago, Zarcéro de Alajuela, Birris de Cartago, Rio Sucio, and Rancho Redondo, Costa Rica; Bangs, Proc. New Engl. Zool. Cl., 3, p. 48, 1902—Boquete and Volcan de Chiriquí, Panama; Ridgway, Bull. U. S. Nat. Mus., 50, Part 4, p. 171, 1907—Costa Rica and Panama (monog.); Ferry, Field Mus. Nat. Hist., Orn. Ser., 1, p. 272, 1910—Coliblanco, Costa Rica; Carriker, Ann. Carnegie Mus., 6, p. 737, 1910—Costa Rica (range, habits).

*Range*.—Subtropical zone of Costa Rica and western Panama (Chiriquí and Veragua).

11: Costa Rica (Santa Cruz de Turrialba, 3; Irazú, 2; Coliblanco, 4; unspecified, 1); Panama (Veragua, 1).

**Myadestes unicolor unicolor** Sclater. SLATE-COLORED SOLITAIRE.

*Myiadestes unicolor* Sclater, Proc. Zool. Soc. Lond., 24, "1856," p. 299, pub. Jan., 1857—Cordoba, Vera Cruz, Mexico (type in coll. of P. L. Sclater, now in British Museum); Baird, Rev. Amer. Bds., 1, p. 428, 1866—part, Cordova; Sclater and Salvin, Exot. Orn., p. 51, pl. 26, 1867—part, Cordova, Mexico.

*Myiadectes unicolor* Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 41, 1879—part, Cordova and Orizaba, Mexico; Sharpe, Cat. Bds. Brit. Mus., 6, p. 376, "1881"—part, southern Mexico.

*Myadestes unicolor* Ridgway, Bull. U. S. Nat. Mus., 50, Part 4, p. 170, 1907—part, southeastern Mexico, in states of Vera Cruz and Chiapas (monog.).

*Range*.—Southeastern Mexico, in states of Vera Cruz and Chiapas (Tumbalá).

**\*Myadestes unicolor veraepacis** Griscom.<sup>1</sup> GUATEMALAN  
SOLITAIRE.

*Myadestes unicolor veraepacis* Griscom, Amer. Mus. Nov., 438, p. 6, 1930—Finca Sepacuite, fifty miles east of Coban, Alta Vera Paz, Guatemala (type in Dwight Collection in the American Museum of Natural History, New York).

*Myiadestes unicolor* (not of Sclater) Sclater and Salvin, Ibis, 1860, p. 397—Coban, Guatemala; Baird, Rev. Amer. Bds., 1, p. 428, 1866—part, Choctum, Guatemala; Sclater and Salvin, Exot. Orn., p. 51, 1867—part, Guatemala.

*Myiadectes unicolor* Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 41, 1879—Coban, Choctum, and forests towards Petén, Guatemala; Sharpe, Cat. Bds. Brit. Mus., 6, p. 376, "1881"—part, Guatemala.

*Myadestes unicolor* Ridgway, Bull. U. S. Nat. Mus., 50, Part 4, p. 170, 1907—part, highlands of Guatemala and northern Honduras (Santa Ana).

*Range*.—Highlands of Guatemala (Coban, Choctum, Petén, Finca Sepacuite) and northern Honduras (Santa Ana, San Pedro).

1: Honduras (mountains west of San Pedro, 1).

**\*Myadestes unicolor pallens** Miller and Griscom.<sup>2</sup> NICARAGUAN  
SOLITAIRE.

*Myadestes unicolor pallens* Miller and Griscom, Amer. Mus. Nov., 183, p. 5, 1925—San Rafael del Norte, Nicaragua (type in the American Museum of Natural History, New York).

*Range*.—Highlands of Nicaragua (San Rafael del Norte, Rio Coco, Ocotal, Jalapa).

5: Nicaragua (San Rafael del Norte, 5).

Genus ENTOMODESTES Stejneger<sup>3</sup>

*Entomodestes* Stejneger, Proc. U. S. Nat. Mus., 5, "1882," p. 456, Feb., 1883—type, by monotypy, *Ptilogonys leucotis* Tschudi.

<sup>1</sup> *Myadestes unicolor veraepacis* Griscom: Agreeing in size with *M. u. unicolor*, but abdomen paler gray, decidedly lighter than the chest; upper parts clearer gray; edges to remiges buffy grayish brown instead of slate gray. Wing, 99–103; tail, 92–98.

The single adult bird from Honduras, while not exactly comparable as to plumage condition, appears to be the same as the Guatemalan race of which three Coban specimens have been examined. It is very different from *M. u. pallens*, being larger and much darker underneath, particularly on the abdomen.

<sup>2</sup> *Myadestes unicolor pallens* Miller and Griscom: Nearest to *M. u. veraepacis*, but noticeably smaller; throat and chest paler gray, becoming light gray or even grayish white in the center of the belly; upper parts slightly paler. Wing, 90–96; tail, 82–90.

<sup>3</sup> This genus seems to be well differentiated from *Myadestes* by longer bill and scutellate inner side of the acrotarsium, and may even prove to belong to the Ptiligonatidae.

**Entomodestes leucotis** (Tschudi). WHITE-EARED SOLITAIRE.

*Ptilogonys leucotis* Tschudi, Arch. Naturg., 10, (1), p. 270, 1844—Peru (type in Neuchâtel Museum); idem, Faun. Peru., Aves, p. 139, pl. 7, fig. 2, 1846—Peru, under 9° S. latitude; Taczanowski, Proc. Zool. Soc. Lond., 1874, p. 509—Paltaypampa, Dept. Junín.

*Myiadestes leucotis* Baird, Rev. Amer. Bds., 1, p. 432, 1866—Peru (monog.); Sharpe, Cat. Bds. Brit. Mus., 6, p. 377, 1881—Peru; Taczanowski, Orn. Pér., 1, p. 455, 1884—Paltaypampa; Berlepsch and Stolzmann, Proc. Zool. Soc. Lond., 1896, p. 327—Garita del Sol, Dept. Junín; idem, Ornisc., 13, p. 106, 1906—Marcapata, Dept. Cuzco.

*Entomodestes leucotis* Ménégau, Rev. Franç. d'Orn., No. 21, p. 8, 1911—Nuevo Loreto, Rio Mixiollo, east of Tayabamba, northern Peru.

**Range.**—Subtropical zone of Peru, in depts. of Libertad (Nuevo Loreto, Prov. Pataz), Junín (Paltaypampa, Garita del Sol), and Cuzco (Marcapata, Santo Domingo).<sup>1</sup>

**Entomodestes coracinus** (Berlepsch).<sup>2</sup> BLACK SOLITAIRE.

*Myiadestes coracinus* Berlepsch, Orn. Monatsber., 5, p. 175, 1897—San Pablo, Prov. Tuqueres, southwestern Colombia (type in coll. of Berlepsch, now in Frankfurt Museum, examined); Goodfellow, Ibis, 1901, p. 311, pl. 8—"below Baeza, eastern Ecuador" (spec. in Tring Museum examined).

*Entomodestes coracinus* Salvadori and Festa, Boll. Mus. Zool. Torino, 14, No. 357, p. 5, 1899—Gualea, Ecuador; Chapman, Bull. Amer. Mus. N. H., 55, p. 578, 1926—"eastern" and western Ecuador and western Colombia (Antioquia).

**Range.**—Subtropical zone of western Colombia (Antioquia; San Pablo, Prov. Tuqueres) and western Ecuador (Gualea; Rio Blanco, below Mindo).

**Genus MIMOCICHLA** Sclater

*Mimocichla* Sclater, Proc. Zool. Soc. Lond., 27, p. 336, 1859—type, by subs. desig. (Baird, Rev. Amer. Bds., 1, p. 35, 1864), *Turdus rubripes* Temminck.

<sup>1</sup> *Material examined.*—Peru: Nuevo Loreto, Prov. Pataz, 2; Garita del Sol, Junín, 1; Santo Domingo, Carabaya, 1.

<sup>2</sup> *Entomodestes coracinus* (Berlepsch): Agreeing in form and general pattern with *E. leucotis*, with which it shares the white sides of the head, but readily distinguishable by the total absence of rufous brown in its plumage, the entire upper and under parts (excepting the white tuft of feathers on the sides of the chest) being uniform black. Wing (six adults), 107–111; tail, 108–110; bill, 16–17.

Birds from Ecuador agree well with the type. Two of the Rio Blanco specimens (Tring Museum) were collected by G. Hammond on Sept. 22, 1914, the third (British Museum) was secured in June, 1914, by Walter Goodfellow.

I feel perfectly certain that a mistake has been made in labeling the specimen figured in "The Ibis" for 1901, and that this species does not occur in eastern Ecuador. Errors in localities are frequent throughout Goodfellow's paper, and all unusual records need corroboration by more reliable evidence.

*Material examined.*—Colombia: Antioquia (unspecified), 2; San Pablo, Prov. Tuqueres, 1 (type of species).—Ecuador: Rio Blanco, below Mindo (alt. 3,000–4,000 ft.), 3; "between Baeza and Archidona," 1.

*Mimokitta* Bryant, Proc. Bost. Soc. N. H., 9, p. 370, 1865—type, by orig. desig., *Turdus plumbeus* Linnaeus.

*Mimocitta* Newton, Ibis, (n.s.), 2, p. 121, 1866—emendation of *Mimokitta* Bryant.

**\**Mimocichla ardosiaacea ardosiaacea* (Vieillot). HAITIAN THRUSH.**

*Turdus ardosiaceus* Vieillot, Tabl. Enc. Méth., Orn., 2, livr. 91, p. 646, 1822—Santo Domingo (location of type unknown).

*Galeoscoptes plumbeus* (not *Turdus plumbeus* Linnaeus, 1758) Sclater, Proc. Zool. Soc. Lond., 27, p. 337, 1859—part, Santo Domingo (monog.).

*Mimocichla ardosiaacea* Baird, Rev. Amer. Bds., 1, p. 39, 1864—Santo Domingo (monog.).

*Mimocichla ardesiaca* Seebohm, Cat. Bds. Brit. Mus., 5, p. 232, 1881—part, Santo Domingo (monog.); Cory, Bds. Haiti and San Dom., p. 18, pls. 2, 3, 1885—Island of Haiti (monog.); Cherrie, Field Columb. Mus., Orn. Ser., 1, p. 9, 1896—Santo Domingo; Sharpe, in Seebohm, Monog. Turd., 2, p. 223, pl. 149, 1902—part, Haiti; Verrill and Verrill, Proc. Acad. Nat. Sci. Phila., 61, p. 366, 1909—Santo Domingo.

*Mimocichla ardosiaacea ardosiaacea* Ridgway, Bull. U. S. Nat. Mus., 50, Part 4, p. 80, 1907—Haiti Island (monog., full bibliog.); Peters, Bull. Mus. Comp. Zool., 61, p. 416, 1917—Sosúa, Choco, Santo Domingo; Bond, Proc. Acad. Nat. Sci. Phila., 80, p. 508, 1928—Haiti, Gonave, and Tortuga Islands (habits); Moltoni, Atti Soc. Ital. Sci. Nat., 68, p. 321, 1929—San Juan and Monte Viejo, Haiti; Wetmore and Swales, Bull. U. S. Nat. Mus., 155, p. 334, 1931—Haiti (monog.).

*Range*.—Island of Haiti, Greater Antilles.

72: Haiti (Le Coup, 9); Santo Domingo (Santo Domingo City, 2; Samaná, 3; Maniel, 2; Honduras, 4; Fuerte Resoli, 3; Aguacate, 9; Catate, 14; La Vega, 5; Puerto Plata, 21).

**\**Mimocichla ardosiaacea portoricensis* (Bryant).<sup>1</sup> PORTO RICAN THRUSH.**

*Turdus ardosiaceus* var. *portoricensis* Bryant, Proc. Bost. Soc. N. H., 11, p. 93, pub. May, 1867—Porto Rico (location of type unknown; cf. Bangs, Bull. Mus. Comp. Zool., 67, p. 202, 1925).

*Galeoscoptes plumbeus* (not *Turdus plumbeus* Linnaeus, 1758) Sclater, Proc. Zool. Soc. Lond., 27, p. 337, 1859—part, Porto Rico (monog.).

*Mimocichla ardesiaca* Seebohm, Cat. Bds. Brit. Mus., 5, p. 232, 1881—part, Porto Rico (monog.); Sharpe, in Seebohm, Monog. Turd., 2, p. 223, 1902—part, Porto Rico.

*Mimocichla ardosiaacea portoricensis* Ridgway, Bull. U. S. Nat. Mus., 50, Part 4, p. 81, 1907—Porto Rico (monog., full bibliog.); Struthers, Auk, 40, p. 476, 1923—Porto Rico; Danforth, Journ. Dept. Agric. Porto Rico,

<sup>1</sup> This is an exceedingly poor race, differing from *M. a. ardosiaacea* by slightly darker, more slaty upper parts and by being a trifle larger, especially as to feet and bill. Many specimens are, however, indistinguishable.

10, No. 1, p. 125, 1926—Cartagena Lagoon, Porto Rico; Wetmore, N. Y. Acad. Sci., Sci. Surv. Porto Rico and Virgin Isl., 9, No. 4, p. 489, 1927—Porto Rico (crit., habits).

*Range*.—Island of Porto Rico, Greater Antilles.

21: Porto Rico (Mayagüez, 5; unspecified, 16).

**Mimocichla ardosiaacea albiventris** Sclater. VERRILL'S THRUSH.

*Mimocichla ardesiacea albiventris* Sclater, Proc. Zool. Soc. Lond., 1889, p. 326—Batalie, Dominica (type in British Museum).

*Mimocichla verrillorum* Allen, Auk, 8, p. 217, 1891—Lasswa, Dominica (location of type not stated); Verrill, Trans. Conn. Acad. Sci., 8, p. 347, pl. 27, fig. 3, 1892—Dominica (crit.).

*Mimocichla albiventris* Allen, Auk, 8, p. 317, 1891—Dominica (crit.); Sharpe, in Seebohm, Monog. Turd., 2, p. 225, 1902—Dominica (monog.).

*Mimocichla ardosiaacea albiventris* Ridgway, Bull. U. S. Nat. Mus., 50, Part 4, p. 82, 1907—Dominica (monog.); Bond, Proc. Acad. Nat. Sci. Phila., 80, p. 537, 1928—Layou, Dominica.

*Range*.—Island of Dominica, Lesser Antilles.

**\*Mimocichla plumbea plumbea** (Linnaeus). BAHAMAN THRUSH.

*Turdus plumbeus* Linnaeus, Syst. Nat., 10th ed., 1, p. 169, 1758—based exclusively on "*Turdus viscivorus plumbeus*" Catesby, Nat. Hist. Carolina, etc., 1, p. 30, pl. 30; "Islands of Andros and Iliathera," Bahamas.

*Mimokitta plumbea* Bryant, Proc. Bost. Soc. N. H., 9, pp. 370, 371, 1865—Bahamas (descr., crit.).

*Mimocichla plumbea* Baird, Rev. Amer. Bds., 1, p. 36, 1864—Nassau, Bahamas (monog.); Cory, Bds. Bahama Isl., p. 45, pl. 11, 1880—Bahamas (monog.); Sharpe, in Seebohm, Monog. Turd., 2, p. 217, pl. 148, 1902—Bahamas (monog.); Riley, in Shattuck, The Bahama Islands, p. 364, 1905—Great Bahama, Abaco, Little Abaco, Eleuthera, New Providence, Andros, and Cat Island; Ridgway, Bull. U. S. Nat. Mus., 50, Part 4, p. 82, 1907—Bahama Islands (monog., full bibliog.); Todd and Worthington, Ann. Carnegie Mus., 7, pp. 427, 457, 1911—New Providence and Abaco.

*Mimocichla bryanti* Seebohm, Cat. Bds. Brit. Mus., 5, p. 280, 1881—new name for *Turdus plumbeus* Linnaeus.

*Range*.—Bahama Islands (Great Bahama, Abaco, Little Abaco, Eleuthera, New Providence, Andros, and San Salvador, or Cat, islands).

26: Bahama Islands (Great Bahama, 3; Abaco, 8; Eleuthera, 8; Nassau, New Providence, 7).

**\*Mimocichla plumbea schistacea** Baird.<sup>1</sup> SLATE-COLORED THRUSH.

<sup>1</sup> *Mimocichla schistacea* is so clearly intermediate to the Bahaman Thrush as to indicate conspecific relationship, and I have no hesitation in associating *M. rubripes* and allies with *M. plumbea*, the various forms constituting a natural group and replacing each other geographically.

*Mimocichla schistacea* Baird, Rev. Amer. Bds., 1, p. 37, 1864—Monte Verde, eastern Cuba (type in U. S. National Museum); Gundlach, Journ. Orn., 20, p. 407, 1872—Guantanamo, Cuba; Cory, Bds. West Ind., p. 19, 1889—eastern Cuba (monog.); Sharpe, in Seebohm, Monog. Turd., 2, p. 219, 1902—eastern Cuba (monog.); Barbour, Mem. Nutt. Orn. Cl., 6, p. 104, 1923—eastern Cuba.

*Mimocichla rubripes* Seebohm, Cat. Bds. Brit. Mus., 5, p. 283, 1881—Cuba (part).

*Mimocichla rubripes schistacea* Ridgway, Bull. U. S. Nat. Mus., 50, Part 4, p. 86, 1907—eastern Cuba (monog., full bibliog.).

*Range*.—Island of Cuba (eastern section), Greater Antilles.

2: Cuba (Santiago, 1; eastern Cuba, 1).

**\*Mimocichla plumbea rubripes** (Temminck). RED-LEGGED THRUSH.

*Turdus rubripes* Temminck, Nouv. Rec. Pl. Col., livr. 69, pl. 409, 1826—Cuba (type in Leiden Museum); d'Orbigny, in La Sagra, Hist. Nat. Cuba, Ois., p. 46, pl. 4, 1839—Cuba (monog.).

*Galeoscoptes rubripes* Sclater, Proc. Zool. Soc. Lond., 27, p. 336, 1859—Cuba (monog.).

*Mimocichla rubripes* Baird, Rev. Amer. Bds., 1, p. 38, 1864—Cuba (monog.); Seebohm, Cat. Bds. Brit. Mus., 5, p. 283, 1881—Cuba (part); Cory, Bds. West Ind., p. 19, 1889—Cuba (monog.); Chapman, Bull. Amer. Mus. N. H., 4, p. 312, 1892—near Trinidad, Cuba (habits); Sharpe, in Seebohm, Monog. Turd., 2, p. 213, pl. 147, 1902—part, Cuba (monog.).

*Mimocichla rubripes rubripes* Bangs and Zappey, Amer. Nat., 39, p. 208, 1905—Isle of Pines (crit., habits); Ridgway, Bull. U. S. Nat. Mus., 50, Part 4, p. 84, 1907—western Cuba (monog., full bibliog.); Todd, Ann. Carnegie Mus., 10, p. 253, 1916—Nueva Gerona, Los Indios, and McKinley, Isle of Pines (habits, crit.); Barbour, Mem. Nutt. Orn. Cl., 6, p. 103, 1923—western Cuba.

*Range*.—Island of Cuba (western section) and Isle of Pines, Greater Antilles.

11: Cuba (San Diego de los Baños, 3; near Palacios, 3; unspecified, 2); Isle of Pines (La Vega, 3).

**\*Mimocichla plumbea coryi** Sharpe. CAYMAN BRAC THRUSH.

*Mimocichla coryi* Sharpe, in Seebohm, Monog. Turd., 2, p. 215, 1902—Cayman Brac (type in Salvin-Godman Collection, now in British Museum).

*Mimocichla rubripes* (not *Turdus rubripes* Temminck) Cory, Auk, 6, p. 31, 1889—Cayman Brac.

*Mimocichla rubripes coryi* Ridgway, Bull. U. S. Nat. Mus., 50, Part 4, p. 86, 1907—Cayman Brac (monog.); Lowe, Ibis, 1911, p. 154—Cayman Brac; Bangs, Bull. Mus. Comp. Zool., 60, p. 314, 1916—Cayman Brac.

*Range*.—Island of Cayman Brac (south of Cuba), Greater Antilles.<sup>1</sup>

9: Cayman Brac.

**Mimocichla plumbea eremita** Ridgway.<sup>2</sup> SWAN ISLAND THRUSH.

*Mimocichla rubripes eremita* Ridgway, Proc. Biol. Soc. Wash., 18, p. 213, 1905—Swan Island, Caribbean Sea (type in U. S. National Museum); idem, Bull. U. S. Nat. Mus., 50, Part 4, p. 85, 1907—Swan Island (monog.).

*Mimocichla rubripes* (not *Turdus rubripes* Temminck) Ridgway, Proc. U. S. Nat. Mus., 10, p. 575, 1887—Swan Island (crit.); Lowe, Ibis, 1909, p. 335—Swan Island (crit.).

*Range*.—Swan Island, Caribbean Sea.

**\*Mimocichla ravida** Cory.<sup>3</sup> GRAND CAYMAN THRUSH.

*Mimocichla ravida* Cory, Auk, 3, p. 499, 1886—Grand Cayman (type in Field Museum); idem, l.c., p. 501, 1886—Grand Cayman; idem, Bds. West Ind., p. 285, 1889—Grand Cayman (monog.); Sharpe, in Seebohm, Monog. Turd., 2, p. 221, 1902—Grand Cayman; Ridgway, Bull. U. S. Nat. Mus., 50, Part 4, p. 87, 1907—Grand Cayman (monog.); Lowe, Ibis, 1911, p. 153—Grand Cayman; Bangs, Bull. Mus. Comp. Zool., 60, p. 313, 1916—Grand Cayman (crit.).

*Range*.—Island of Grand Cayman, Greater Antilles.

7: Grand Cayman.

Genus **HAPLOCICHLA** Ridgway

*Haplocichla* Ridgway, Proc. Biol. Soc. Wash., 18, p. 212, 1905—type, by orig. desig., *Turdus aurantius* Gmelin.

**\*Haplocichla aurantia** (Gmelin). WHITE-CHINNED THRUSH.

*Turdus aurantius* Gmelin, Syst. Nat., 1, (2), p. 832, 1879—based on "Thrush" Sloane, Voy. Jamaica, 2, p. 305, pl. 256, fig. 2, and "Le Merle de la Jamaïque" Brisson, Orn., 2, p. 277, Jamaica (excl. ref. Fermin and var.  $\beta$ - $\delta$ ); Sclater, Proc. Zool. Soc. Lond., 27, p. 333, 1859—Jamaica (monog.).

*Turdus leucogenus* Latham, Ind. Orn., 1, p. 341, 1790—new name for *Turdus aurantius* Gmelin.

<sup>1</sup> No representative of the genus appears to occur on Little Cayman Island.

<sup>2</sup> We are not acquainted with this form, which is only known from ten specimens collected by Townsend in February, 1887. P. R. Lowe, who despite an extensive search failed to find it on the island, questions its distinctness, and thinks it might be merely a migratory visitor from Cuba.

<sup>3</sup> This species differs from the other members of the genus by the reduction of the white markings on the lateral rectrices and by having the throat slate-gray like the rest of the under parts; besides, the upper wing coverts and tertials are uniform gray instead of black edged with gray.

*Turdus leucogenys* Gosse,<sup>1</sup> Bds. Jamaica, p. 136, 1847—Jamaica (habits); idem, Illust. Bds. Jam., pl. 23, 1849.

*Semimerula aurantia* Baird, Rev. Amer. Bds., 1, p. 34, 1864—Trelawney, Spanishtown, and Goshen, Jamaica (crit.).

*Merula aurantia* Seeböhm, Cat. Bds. Brit. Mus., 5, p. 247, 1881—Jamaica (monog.); Cory, Auk, 3, p. 3, 1886—Jamaica (monog.); idem, Bds. West Ind., p. 17, 1889—Jamaica (monog.); Scott, Auk, 10, p. 342, 1893—Jamaica; Sharpe, in Seeböhm, Monog. Turd., 2, p. 151, pl. 131, 1901—Jamaica (monog.).

*Haplocichla aurantia* Ridgway, Bull. U. S. Nat. Mus., 50, Part 4, p. 88, 1907—Jamaica (monog., full bibliog.); Danforth, Auk, 45, p. 488, 1928—Lumsden, Jacksontown, Moneague, and Mandeville, Jamaica.

*Range*.—Island of Jamaica, Greater Antilles.

5: Jamaica (Spanishtown, 1; Priestman's River, 1; Maryland, St. Andrew, 1; unspecified, 2).

### **Haplocichla swalesi** Wetmore.<sup>2</sup> SWALES'S THRUSH.

*Haplocichla swalesi* Wetmore, Proc. Biol. Soc. Wash., 40, p. 55, 1927—Massif de la Selle, Haiti (type in U. S. National Museum examined); Bond, Proc. Acad. Nat. Sci. Phila., 80, p. 509, 1928—Morne La Selle, Haiti; Wetmore and Swales, Bull. U. S. Nat. Mus., 155, p. 338, pl. 22, 1931—La Selle Ridge, Haiti (monog.).

*Range*.—Mountain forests of the island of Haiti (Massif de la Selle), Greater Antilles.

### **Genus CICHLHERMINIA** Bonaparte<sup>3</sup>

*Cichlherminia* Bonaparte, Compt. Rend. Acad. Sci. Paris, 38, p. 2, 1854; Not. Orn. Coll. Delattre, p. 26—type, by subs. desig. (Gray, Cat. Gen. Subgen. Bds., p. 43, 1855), *Turdus l'herminieri* Lafresnaye.

*Cichlherminia* Sclater, Proc. Zool. Soc. Lond., 27, p. 335, 1859—emendation.

### **\*Cichlherminia l'herminieri l'herminieri** (Lafresnaye). GUADELOUPE FOREST THRUSH.

*Turdus L'Herminieri* Lafresnaye, Rev. Zool., 7, p. 167, 1844—Guadeloupe (type now in Museum of Comparative Zoology, Cambridge, Mass.; cf. Bangs, Bull. Mus. Comp. Zool., 70, p. 326, 1930).

<sup>1</sup> Gosse quotes as synonym *Merula saltator* Hill from "Comp. Jam. Almanack," for 1842, a publication that we have not been able to consult.

*Turdus americanus* Latham (Ind. Orn., 1, p. 342, 1790—based on "Le Merle d'Amérique" Brisson, Orn., 2, p. 308—ex Feuillée), quoted by Ridgway, does not belong here.

<sup>2</sup> *Haplocichla swalesi* Wetmore: Similar to *H. aurantia*, but wing more rounded; entire upper parts, including sides of head, deep black; throat (excepting the white chin) and upper foreneck black, slightly streaked with white; upper breast blackish slate with faint brownish edgings; lower breast and sides bright hazel; no white on wing. Wing, 127–130, (female) 124; tail, 102–104, (female) 98; bill, 22½–24.

<sup>3</sup> A monotypic genus, the species being divisible into four races replacing each other on different islands. The Dominican form represents the darkest, the Santa Lucian form the lightest extreme.



*Cichlerminia bonapartii* Selater, Proc. Zool. Soc. Lond., 27, p. 335, 1859—Guadeloupe (type in British Museum).

*Cichlerminia coryi* Ridgway,<sup>1</sup> Smiths. Misc. Coll., 47, p. 112, 1904—"locality unknown, but supposed to be Martinique" (type now in Museum of Comparative Zoology, Cambridge, Mass.; cf. Bangs, Bull. Mus. Comp. Zool., 70, p. 326, 1930); idem, Bull. U. S. Nat. Mus., 50, Part 4, p. 76, 1907—probably Martinique (monog.); Noble, Bull. Mus. Comp. Zool., 60, p. 393, 1916 (crit.).

*Margarops herminieri* Lawrence, Proc. U. S. Nat. Mus., 1, p. 452, 1879—Guadeloupe; idem, l.c., 1, p. 486, 1879—part, Guadeloupe.

*Cichlerminia herminieri* Sharpe, Cat. Bds. Brit. Mus., 6, p. 327, 1881—part, Guadeloupe; Cory, Auk, 3, p. 7, 1886—part, Guadeloupe (monog.); idem, l.c., 8, p. 43, 1891—Guadeloupe; idem, Bds. West Ind., p. 21, 1889—part, Guadeloupe; Noble, Bull. Mus. Comp. Zool., 60, p. 393, 1916—Guadeloupe (crit.).

*Cichlerminia herminieri herminieri* Ridgway, Bull. U. S. Nat. Mus., 50, Part 4, p. 74, 1907—Guadeloupe (monog.).

*Cichlerminia l'herminieri l'herminieri* Bangs, Bull. Mus. Comp. Zool., 70, p. 326, 1930—Guadeloupe (notes on types).

*Turdus herminieri* Sharpe, in Seebohm, Monog. Turd., 1, p. 115, pl. 37, 1898—Guadeloupe (monog.).

*Range*.—Island of Guadeloupe, Lesser Antilles.

6: Guadeloupe (Goyave, 2; unspecified, 4).

**\**Cichlerminia l'herminieri lawrencii* Cory. MONTSERRAT FOREST THRUSH.**

*Cichlerminia lawrencii* Cory, Auk, 8, p. 44, 1891—Montserrat (type now in Field Museum).

*Cichlerminia herminieri lawrencii* Ridgway, Bull. U. S. Nat. Mus., 50, Part 4, p. 75, 1907—Montserrat.

*Turdus lawrencii* Sharpe, in Seebohm, Monog. Turd., 1, p. 117, 1898—Montserrat.

*Range*.—Island of Montserrat, Lesser Antilles.

1: Montserrat (the type).

**\**Cichlerminia l'herminieri dominicensis* (Lawrence). DOMINICA FOREST THRUSH.**

*Margarops dominicensis* Lawrence, Proc. U. S. Nat. Mus., 3, p. 16, 1880—Dominica (type in U. S. National Museum).

*Margarops herminieri* (not *Turdus l'herminieri* Lafresnaye) Lawrence, Proc. U. S. Nat. Mus., 1, p. 52, 1878—Dominica; idem, l.c., 1, p. 486, 1879—part, Dominica.

<sup>1</sup> This alleged species proves to have been based upon the worn adult plumage of *C. l'herminieri l'herminieri*. The types of both were collected on Guadeloupe by l'Herminier.

*Cichlherminia dominicensis* Sharpe, Cat. Bds. Brit. Mus., 6, p. 328, 1881—Dominica (monog.); Cory, Auk, 3, p. 8, 1886—Dominica (monog.); idem, Bds. West Ind., p. 22, 1889—Dominica (monog.); idem, Auk, 8, p. 44, 1891—Dominica; Verrill and Verrill, Trans. Connect. Acad. Sci., 8, p. 346, 1892—Dominica (habits, nest, and eggs); Ridgway, Bull. U. S. Nat. Mus., 50, Part 4, p. 77, 1907—Dominica (monog.); Bond, Proc. Acad. Nat. Sci. Phila., 80, p. 537, 1928—Dominica.

*Turdus dominicensis* Sharpe, in Seebohm, Monog. Turd., 1, p. 121, pl. 38, 1898—Dominica (monog.).

*Range*.—Island of Dominica, Lesser Antilles.

2: Dominica.

**\**Cichlherminia l'herminieri sanctae-luciae* (Sclater).<sup>1</sup> SANTA LUCIA FOREST THRUSH.**

*Margarops sanctae-luciae* Sclater, Ibis, (4), 4, p. 73, 1880—Santa Lucia (type in coll. of P. L. Sclater, now in British Museum); Allen, Bull. Nutt. Orn. Cl., 5, p. 165, 1880—Santa Lucia (crit.).

*Margarops herminieri* (not *Turdus l'herminieri* Lafresnaye) Sclater, Proc. Zool. Soc. Lond., 1871, p. 268—Santa Lucia; idem and Semper, l.c., 1872, p. 647—Santa Lucia (habits).

*Cichlherminia sanctae-luciae* Sharpe, Cat. Bds. Brit. Mus., 6, p. 328, 1881—Santa Lucia (monog.); Cory, Auk, 3, p. 8, 1886—Santa Lucia (monog.); idem, l.c., 8, p. 44, 1891—part, Santa Lucia; idem, Bds. West Ind., p. 22, 1889—Santa Lucia (monog.); Sclater, Proc. Zool. Soc. Lond., 1889, p. 395—Santa Lucia; Ridgway, Bull. U. S. Nat. Mus., 50, Part 4, p. 75, 1907—Santa Lucia (monog.); Bond, Proc. Acad. Nat. Sci. Phila., 80, p. 537, 1928—Santa Lucia.

*Margarops herminieri* var. *semperei* (Lawrence MS.) Allen, Bull. Nutt. Orn. Cl., 5, p. 165, 1880—substitute name for *M. sanctae-luciae* Sclater.

*Turdus sanctae-luciae* Sharpe, in Seebohm, Monog. Turd., 1, p. 119, 1898—Santa Lucia (monog.).

*Range*.—Island of Santa Lucia, Lesser Antilles.

5: Santa Lucia.

**Genus HYLOCICHLA Baird**

*Hylocichla* Baird, Rev. Amer. Bds., 1, p. 12, 1864—type, by orig. desig., *Turdus mustelinus* Gmelin.

**\**Hylocichla mustelina* (Gmelin). WOOD THRUSH.**

*Turdus mustelinus* Gmelin, Syst. Nat., 1, (2), p. 817, 1789—based on "Tawny Thrush" Latham, Gen. Syn. Bds., 2, (1), p. 28, and Pennant, Arct. Zool.,

<sup>1</sup> Forest thrushes have been observed by Fred Ober on both Martinique and St. Vincent (see Lawrence, Proc. U. S. Nat. Mus., 1, pp. 187, 351: *Margarops herminieri*) in the late seventies, but are believed to be now extinct. Clark (Auk, 22, p. 266, 1905; Proc. Bost. Soc. N. H., 32, p. 296, 1905), in spite of intensive researches, found no trace of any *Cichlherminia* on St. Vincent. As no specimen from either island exists in collections, there is no means of telling whether the inhabitants of Martinique and St. Vincent belonged to any of the known races or not.

2, p. 337, New York; Sharpe, in Seebohm, *Monog. Turd.*, 1, p. 147, 1898.

*Turdus melodus* Wilson, *Amer. Orn.*, 1, p. 29, pl. 2, fig. 1, 1808—eastern United States (monog.).

*Turdus melodius* Bonaparte, *Journ. Acad. Nat. Sci. Phila.*, 4, p. 33, 1824.

*Turdus densus* Bonaparte, *Compt. Rend. Acad. Sci. Paris*, 37, p. 2, 1854—Tabasco, Mexico (type in Brussels Museum).

*Hylocichla mustelina* Ridgway, *Bull. U. S. Nat. Mus.*, 50, Part 4, p. 37, 1907 (monog., full bibliog.); Peters, *Bull. Mus. Comp. Zool.*, 69, p. 460, 1929—Tela, Honduras; idem, *l.c.*, 71, p. 332, 1931—Changuinola, Almirante, western Panama.

*Range*.—Breeds in Transition and Austral zones from southern South Dakota, central Minnesota, central Wisconsin, southeastern Ontario, southern New Hampshire, and southern Maine, south to eastern Texas, Louisiana, southern Alabama, and northern Florida; winters from Puebla, Mexico, to western Panama; casual in migration in the Bahamas, Cuba, and Jamaica; accidental in Colorado and Bermuda.

32: Wisconsin (Beaver Dam, 3); Illinois (Chicago, 2; Fox Lake, 1; Desplaines River, 2; Grand Chain, 2; Deerfield, 2; Henry, 1; Joliet, 4; Englewood, 1); Ohio (Columbus, 1); Connecticut (East Hartford, 1); Tennessee (Waverley, 1); Mississippi (Vicksburg, 4); Florida (Key West, 1); North Carolina (Raleigh, 1); Yucatan (Cozumel Island, 1); "Guatemala," 4.

**\**Hylocichla guttata guttata* (Pallas). ALASKA HERMIT THRUSH.**

*Muscicapa guttata* Pallas, *Zoogr. Rosso-Asiatica*, 1, p. 465, "1826"—"in insulis Americae praesertim Kadiak"—Kodiak Island, Alaska (type in Berlin Museum; cf. Cabanis, in Tschudi, *Faun. Peru., Aves*, p. 187, 1846).

*Turdus guttatus* Cabanis, in Tschudi, *Faun. Peru., Aves*, p. 187, 1846 (crit., descr., note on type).

*Turdus pallasii* Cabanis, *Arch. Naturg.*, 13, (1), p. 205, 1847—new name for *Muscicapa guttata* Pallas.

*Turdus aonalaschkae* (not of Gmelin<sup>1</sup>) Sharpe, in Seebohm, *Monog. Turd.*, 1, p. 193, 1898 (part, monog.).

*Hylocichla guttata guttata* Ridgway, *Bull. U. S. Nat. Mus.*, 50, Part 4, p. 39, 1907 (monog., full bibliog.); van Rossem, *Trans. San Diego Soc. N. H.*, 6, p. 277, 1931—Sonora.

*Range*.—Breeds mainly in Hudsonian zone from south-central Alaska south to Kodiak Island, Cross Sound, and northern British

<sup>1</sup> *Turdus aonalaschkae* Gmelin, *Syst. Nat.*, 1, (2), p. 808, 1789—based on "Aonalashka Thrush" Latham, *Gen. Syn. Birds*, 2, (1), p. 23, and "Unalaska Thrush" Pennant, *Arct. Zool.*, 2, p. 338. This description is not diagnostic of the species, being too vague and unsatisfactory (cf. Nelson, *Report Nat. Hist. Coll. Alaska*, p. 218, 1887).

Columbia; winters south to Cape San Lucas, Lower California, Sonora, Chihuahua, Nuevo Leon, and Tamaulipas; in migration east to eastern Oregon, Idaho, Nevada, and New Mexico.

11: Alaska (Cook Inlet, 1); California (Nicasio, 3; Monterey, 3; Pacific Grove, 1; Palo Alto, 1; San Diego, 1; San Dimas Canyon, 1).

**\*Hylocichla guttata nana** (Audubon). DWARF HERMIT THRUSH.

*Turdus nanus* Audubon, Orn. Biog., 5, p. 201, 1839—valleys of the Columbia River=Fort Vancouver, Washington (type now in Museum of Comparative Zoology, Cambridge, Mass.; cf. Brewster, Bull. Mus. Comp. Zool., 41, p. 213, 1903, and Bangs, l.c., 70, p. 331, 1930).

*Turdus minor* (not of Gmelin) Audubon, Birds Amer., 4, pl. 419, fig. 1c, 1838.

*Turdus aonalaschkae* (not of Gmelin) Ridgway, Proc. U. S. Nat. Mus., 3, p. 1, 1880 (part; crit.); Sharpe, in Seeböhm, Monog. Turd., 1, p. 193, 1898 (part).

*Hylocichla aonalaschkae verecunda* Osgood, Auk, 18, p. 183, 1901—Cumshewa Inlet, Queen Charlotte Islands, British Columbia (type in U. S. National Museum).

*Hylocichla guttata nana* Ridgway, Bull. U. S. Nat. Mus., 50, Part 4, p. 42, 1907 (monog., full bibliog.).

**Range.**—Breeds in the Canadian and Transition zones from Cross Sound, Alaska, south to the coast region of southern British Columbia; winters south to California, Lower California, Arizona, and New Mexico.

25: California (Nicasio, 7; Haywards, 2; Alameda, 3; Palo Alto, 4; San Dimas Canyon, 1; San Sevaire Flats, 1; Los Gatos, 1; La Honda, 1; San Mateo County, 2; Los Angeles County, 1; Clipper Gap, 1); Arizona (Tucson, 1).

**\*Hylocichla guttata slevini** Grinnell. MONTEREY HERMIT THRUSH.

*Hylocichla aonalaschkae slevini* Grinnell, Auk, 18, p. 253, 1901—vicinity of Point Sur, Monterey County, California (type destroyed, formerly in California Academy of Sciences, San Francisco).

*Hylocichla guttata slevini* Swarth, Pac. Coast Avifauna, 4, p. 64, 1904—Huachuca Mountains, Arizona (crit.).

*Hylocichla guttata slevini* Ridgway, Bull. U. S. Nat. Mus., 50, Part 4, p. 44, 1907 (monog., full bibliog.); van Rossem, Trans. San Diego Soc. N. H., 6, p. 277, 1931—Sonora.

**Range.**—Breeds in Transition zone of the coast belt of California from northern Trinity County to southern Monterey County; south in migration to Lower California, Arizona, and Sonora.

1: California (San Diego, 1).

**\*Hylocichla guttata sequoiensis (Belding).<sup>1</sup> SIERRA HERMIT THRUSH.**

*Turdus sequoiensis* Belding, Proc. Calif. Acad. Sci., (2), 2, p. 18, 1889—Big Trees, Calaveras County, California (type destroyed, formerly in California Academy of Sciences, San Francisco).

*Turdus auduboni* (not of Baird) Sharpe, in Seebohm, Monog. Turd., 1, p. 197, 1898—part (monog.).

*Hylocichla guttata sequoiensis* Ridgway, Bull. U. S. Nat. Mus., 50, Part 4, p. 44, 1907 (monog., full bibliog.); Swarth and Brooks, Pac. Coast Avifauna, 17, p. 121, 1925—British Columbia (crit.); Grinnell, Univ. Calif. Pub. Zool., 35, p. 345, 1930—Mount Lassen (crit.).

*Range*.—Breeds in Boreal zone from southern British Columbia to southern California; south in migration and in winter to Texas and northern Mexico.<sup>2</sup>

3: Texas (Ingram, 2; Waring, 1).

**Hylocichla guttata polionota Grinnell.<sup>3</sup> WHITE MOUNTAIN HERMIT THRUSH.**

*Hylocichla guttata polionota* Grinnell, Condor, 20, p. 89, 1918—Wyman Creek (alt. 8,000 ft.), White Mountains, Inyo County, California (type in Museum of Vertebrate Zoology, Berkeley).

*Range*.—Breeds in the Canadian and Hudsonian zones of the White Mountains, Mono and Inyo counties, California.

**\*Hylocichla guttata auduboni (Baird).<sup>4</sup> AUDUBON'S HERMIT THRUSH.**

*Turdus auduboni* Baird, Rev. Amer. Bds., 1, p. 16, 1864—Fort Bridger, Wyoming (type in U. S. National Museum); Sharpe, in Seebohm, Monog. Turd., 1, p. 197, pl. 46, fig. 1, 1898 (part).

*Hylocichla guttata auduboni* Ridgway, Bull. U. S. Nat. Mus., 50, Part 4, p. 46, 1907 (monog., full bibliog.); Grinnell, Univ. Calif. Pub. Zool., 32, p. 231, 1928—Cape district, Lower California.

<sup>1</sup> Birds from southern British Columbia to northern California have lately been separated as *H. g. oromela* Oberholser (Sci. Pub. Cleveland Mus. N. H., 4, p. 8, 1932—type from Crook Peak, Warner Mountains, Oregon).

<sup>2</sup> The specimens from Illinois recently recorded as *sequoiensis* by Brodcorb (Auk, 47, p. 97, 1930) prove, on reexamination, to be worn spring birds of the Eastern Hermit Thrush (*H. g. faxoni*).

<sup>3</sup> *Hylocichla guttata polionota* Grinnell: "Size large, between that of *H. g. sequoiensis* of the Sierra Nevada, and of *H. g. auduboni* of the Rocky Mountains, nearest the former. Color of top of head and dorsum different from that in either of these races and, in fact, from that of any previously known race of Hermit Thrush. The tone of this coloration is the "olive-brown" of Ridgway (Color Standard and Color Nomenclature, 1912, pl. 40), and is close to that of the corresponding areas in the Olive-backed Thrush (*Hylocichla ustulata swainsoni*); it is, if anything, even more slaty." (Grinnell, l.c.).

<sup>4</sup> Birds from northern Idaho have been separated as *H. g. dwighti* Bishop (Proc. Biol. Soc. Wash., 46, p. 201, 1933—type from Priest Lake, Idaho).

*Range*.—Breeds in Canadian and Upper Transition zones from southeastern British Columbia and Montana south to Nevada (Toyabe Mountains), and mountains of Arizona and New Mexico, also in the Sierra de la Laguna, Cape district of Lower California; winters in western and central Texas, and south over the Mexican tableland to Guatemala.

11: Colorado (Fort Lyon, 2; Mill City, 1); Arizona (Huachuca Mountains, 1); Texas (Davis Mountains, 1); Chihuahua (thirty miles west of Miñaca, 1); Coahuila (Sabinas, 1); Jalisco (Sierra Bolaños, 1); Hidalgo (Real del Monte, 2); Guatemala (Sierra Santa Elena, 1).

**\*Hylocichla guttata faxoni** Bangs and Penard. EASTERN HERMIT THRUSH.

*Hylocichla guttata faxoni* Bangs and Penard, Auk, 38, p. 432, 1921—Shelburne, New Hampshire (type in Museum of Comparative Zoology, Cambridge, Mass.).

*Turdus pallasi* (not of Cabanis) Sharpe, in Seebohm, Monog. Turd., 1, p. 185, pl. 46, fig. 2, 1898 (monog.).

*Hylocichla guttata pallasi* Ridgway, Bull. U. S. Nat. Mus., 50, Part 4, p. 48, 1907 (monog., full bibliog.).

*Range*.—Breeds in Canadian and Transition zones from Yukon, southwestern Mackenzie, northern Manitoba, and southern Quebec south to central Alberta, central Saskatchewan, central Minnesota, northern Michigan, Ontario, Massachusetts, Connecticut, Long Island (locally), and mountains of Pennsylvania, Maryland, and Virginia; winters from Massachusetts (locally) and the lower Delaware and Ohio valleys to Texas and Florida; occasional in Bermuda; accidental in Greenland and Europe.

69: Maine (Brewer, 1); Massachusetts (Duxbury, 1; Taunton, 1; Sudbury, 1); Connecticut (East Hartford, 16); New York (Peterboro, 2; Shelter Island, 1; Suffolk County, 1); South Carolina (Hunting Island, 1); Florida (Wilson, 1; Starke, 1; Punta Rasa, 1); Illinois (Chicago, 4; Highland Park, 2; Lake Forest, 2; Worth, 1; Palos, 1; Roby, 1; Beach, 8; Deerfield, 2; Champaign, 2; Evanston, 1; Glencoe, 1; Joliet, 6); Wisconsin (Beaver Dam, 4; Woodruff, 4); Michigan (Grand Rapids, 1); Texas (Giddings, 1).

**\*Hylocichla ustulata ustulata** (Nuttall). RUSSET-BACKED THRUSH.

*Turdus ustulatus* Nuttall, Man. Orn. U. S. and Canada, Land Birds, 2nd ed., pp. VI, 400, 830, 1840—"forests of the Oregon"—Fort Vancouver, Wash-

ington (type in U. S. National Museum); Sharpe, in Seebohm, Monog. Turd., 1, p. 175, pl. 45, fig. 2, 1898 (monog.).

*Hylocichla ustulata oedica* Oberholser, Auk, 16, p. 23, 1899—Santa Barbara, California (type in U. S. National Museum).

*Hylocichla ustulata ustulata* Ridgway, Bull. U. S. Nat. Mus., 50, Part 4, p. 52, 1907 (monog., full bibliog.); van Rossem, Trans. San Diego Soc. N. H., 6, p. 277, 1931—Sonora.

**Range.**—Breeds in Canadian and Transition zones from Juneau, Alaska, to San Diego County, California; winters in Mexico and Guatemala;<sup>1</sup> accidental in Iowa, Missouri, New Mexico, and South Carolina.

30: Oregon (Logan, 1); California (Corona, 1; San Diego, 1; Eureka, 1; Alhambra, 1; Haywards, 1; Alameda, 1; Oakland, 1; Los Gatos, 3; Nicasio, 7); Arizona (Calabasas, 1); Guatemala (Mazatenango, 4; Los Amates, 1; Patulul, 6).

**\**Hylocichla ustulata swainsoni* (Tschudi). OLIVE-BACKED THRUSH.**

*Merula wilsonii* Swainson (not *Turdus wilsonii* Bonaparte), in Swainson and Richardson, Faun. Bor.-Amer., 2, p. 182, 1832—Carlton House, latitude 53°, on the banks of the Saskatchewan (type no doubt lost).

*Turdus swainsoni* (Cabanis MS.) Tschudi, Faun. Peru., Aves, p. 28, 1845—new name for *Merula wilsonii* Swainson;<sup>2</sup> Pelzeln, Orn. Bras., 2, p. 92, 1868—Cocuy and Marabitanas, Brazil; Taczanowski, Orn. Pér., 1, p. 487, 1884—Monterico, Chamicuros, Tambillo, Tamaipampa, and Huambo, Peru; Sharpe, in Seebohm, Monog. Turd., 1, p. 179, pl. 45, fig. 3, 1898 (monog.); Baer, Ornith., 12, p. 213, 1904—Tucumán, Argentina.

*Turdus marañonicus* (not of Taczanowski) Goodfellow, Ibis, 1901, p. 310—Archidona, eastern Ecuador (spec. in Tring Museum examined).

*Hylocichla swainsoni* Bertoni, Faun. Parag., p. 58, 1914—Paraguay.

*Hylocichla ustulata swainsonii* Ridgway, Bull. U. S. Nat. Mus., 50, Part 4, p. 55, 1907 (monog., full bibliog.); Bangs and Barbour, Bull. Mus. Comp. Zool., 65, p. 221, 1922—Daríen.

<sup>1</sup> Records of the Russet-backed Thrush from South America are obviously due to confusion with *H. u. swainsoni*. Salvin (Ibis, 1885, p. 197) claims that a single specimen obtained by H. Whitely on Dec. 6, 1881, at Roraima, British Guiana, is referable to *H. u. ustulata*. Although the identification has been corroborated by Sharpe (Monog. Turd., 1, p. 176) and Chubb (Bds. Brit. Guiana, 2, p. 389, 1921), the example needs careful reexamination before this extraordinary record can be accepted. As a matter of fact, there does not seem to exist any authentic record for the occurrence of this thrush south of Guatemala.

<sup>2</sup> The A. O. U. Check List (3rd ed.) erroneously gave "New Jersey" as type locality. Where the name first appears (p. 28), it is, however, merely a substitute for *Merula wilsonii* of Swainson, who described a specimen taken in May, 1827, at Carlton House, Saskatchewan, which automatically becomes the type locality of *T. swainsoni*. The bird collected by Cabanis in New Jersey is but incidentally characterized on p. 188.

*Hylocichla ustulata almae* Oberholser,<sup>1</sup> Auk, 15, p. 304, 1898—East Humboldt Mountains, opposite Franklin Lake, Nevada (type in U. S. National Museum).

*Hylocichla ustulata swainsoni* Chapman, Bull. Amer. Mus. N. H., 36, p. 538, 1917—various localities in Colombia; Todd and Carriker, Ann. Carnegie Mus., 14, p. 404, 1922—Santa Marta, Colombia; Chapman, Bull. Amer. Mus. N. H., 55, p. 584, 1926—Ecuador references.

*Range*.—Breeds in the Lower Hudsonian and Canadian zones from northwestern Alaska, northwestern Mackenzie, northern Manitoba, central Quebec, and Newfoundland south to Kenai Peninsula, Alaska, eastern Oregon, Nevada, Utah, Colorado, northern Michigan, New York, and in mountains from Massachusetts to Pennsylvania and West Virginia; winters from southern Mexico to Peru, Bolivia, Brazil, Paraguay, and Argentina; casual in Lower California, Cuba, and Bermuda.

79: Maine (Upton, 2; Lincoln, 1); Massachusetts (Taunton, 1; Brookline, 1); New York (Shelter Island, 2; Rochester, 1); Illinois (Deerfield, 4; Chicago, 12; Joliet, 3; Henry, 1; Englewood, 2; Hegevisch, 1; Beach, 2; Lake Forest, 10; Fox Lake, 3); Wisconsin (Beaver Dam, 8); Arkansas (Winslow, 2); Tennessee (Waverley, 1); Mississippi (Holly Springs, 1); Texas (Fort Worth, 1); Iowa (Cedar Rapids, 2); North Dakota (Cape Buttes, Cannonball River, 1); Colorado (Fort Lyon, 7); Arizona (Huachuca Mountains, 1); Nicaragua (San Gerónimo, 1); Costa Rica (Orosi, 2); Colombia ("Bogotá," 2; Páramo de Tamá, 1); Peru (Chinchao, 2); Bolivia (Buenavista, 1).

**\**Hylocichla minima aliciae* (Baird). GRAY-CHEEKED THRUSH.**

*Turdus aliciae* Baird, Rep. Pac. R. R. Surv., 9, p. 217, 1858—Illinois and upper Missouri (type from West Northfield, Illinois, in U. S. National Museum); Sharpe, in Seebohm, Monog. Turd., 1, p. 163, pl. 45, fig. 1, 1898 (monog.).

*Hylocichla aliciae aliciae* Ridgway, Bull. U. S. Nat. Mus., 50, Part 4, p. 59, 1907 (monog., full bibliog.); Thayer and Bangs, Proc. New Engl. Zool. Cl., 5, p. 37, 1914—Nijni Kolymsk, northeastern Siberia (breeding); Carriker, Ann. Carnegie Mus., 6, p. 743, 1910—Costa Rican localities; Chapman, Bull. Amer. Mus. N. H., 36, p. 537, 1917—Colombian localities; idem, l.c., 55, p. 584, 1926—Ecuadorian localities.

*Hylocichla aliciae* Chubb, Bds. Brit. Guiana, 2, p. 388, 1921—British Guianan localities.

*Hylocichla minima aliciae* Todd and Carriker, Ann. Carnegie Mus., 14, p. 404, 1922—Santa Marta, Colombia.

<sup>1</sup> Van Rossem (Condor, 27, p. 37, 1925) finds that it may be possible to distinguish birds from the Rocky Mountains under this name. More material than at present is available is needed to clarify this subject.



*Range*.—Breeds in the Hudsonian zone in a narrow belt just south of tree limit from northeastern Siberia through northwestern Alaska, northwestern Mackenzie, and northern Manitoba to central Quebec, and in Newfoundland; migrates through eastern North America and along the east coast of Central America and winters in Colombia, Ecuador, Peru, Venezuela, and British Guiana; west in migration to Montana, Kansas, and Texas; accidental in Cuba, Greenland, and Heligoland.

59: Massachusetts (Brookline, 1); New York (Shelter Island, 1; Suffolk County, 1); New Jersey (Englewood, 3); Florida (Gainesville, 1); Indiana (Roby, 1); Illinois (Chicago, 8; Deerfield, 4; Lake Forest, 11; Evanston, 1; Henry, 4; Lyons, 1; Beach, 4; Warsaw, 2; Joliet, 5; Palos, 1); Iowa (Burlington, 1); South Dakota (South Dakota City, 1); Wisconsin (Beaver Dam, 6); Mississippi (Holly Springs, 1); Louisiana (City Park, Orleans County, 1).

**\**Hylocichla minima minima* (Lafresnaye).<sup>1</sup> BICKNELL'S THRUSH.**

*Turdus minimus* Lafresnaye, Rev. Zool., 11, p. 5, 1848—"Habitat ad Bogotam, in Nova-Grenada"—Bogotá (type in coll. Lafresnaye, now in Museum of Comparative Zoology, Cambridge, Mass.; cf. Bangs, Bull. Mus. Comp. Zool., 70, p. 331, 1930); Bryant, Proc. Bost. Soc. N. H., 7, p. 226, 1860—Bogotá (descr., crit.).

*Hylocichla aliciae bicknelli* Ridgway, Proc. U. S. Nat. Mus., 4, p. 377, 1882—Slide Mountain, Ulster County, New York (type in U. S. National Museum); idem, Bull. U. S. Nat. Mus., 50, Part 4, p. 62, 1907 (monog., full bibliog.).

*Hylocichla minima minima* Bangs and Penard, Bull. Mus. Comp. Zool., 63, p. 30, 1919 (crit.;= *H. a. bicknelli* Ridgway).

*Range*.—Breeds in the Hudsonian and Upper Canadian zones in Nova Scotia, mountains of northern New England, the Catskills and Adirondacks of New York, and probably in the mountains of western Massachusetts; migrates through southeastern United States and the Bahamas and winters in Haiti and northern South America (Colombia).

9: Connecticut (East Hartford, 2); New Jersey (Princeton, 1); Florida (Key West, 1; Nassau County, 1); Santo Domingo (Agua-cate, 2; Puerto Plata, 2).

**\**Hylocichla fuscescens fuscescens* (Stephens). VEERY.**

*Turdus fuscescens* Stephens, in Shaw, Gen. Zool., 10, (1), p. 182, 1817—based on *Turdus mustelinus* Wilson (not of Gmelin), Amer. Orn., 5, p. 98, pl. 43,

<sup>1</sup> Cf. Bangs and Penard (l.c.), who show that Lafresnaye's type of *Turdus minimus* is an example of Bicknell's Thrush. Bogotá is the southernmost record for this form.

fig. 3, 1812, Pennsylvania (type in Peale's Museum); Pelzeln, Orn. Bras., 2, p. 92, 1868—São Vicente, Matto Grosso; Sharpe, in Seebohm, Monog. Turd., 1, p. 153, pl. 44, 1898 (monog.).

*Turdus wilsonii* Bonaparte, Journ. Acad. Nat. Sci. Phila., 4, p. 34, 1824—based on *Turdus mustelinus* Wilson.

*Turdus silens* Vieillot, Tabl. Enc. Méth., Ornith., 2, livr. 91, p. 647, 1822—based on *Turdus mustelinus* Wilson.

*Merula philomelloides* Blyth, Analyst, 4, p. 222, 1836—new name for *Turdus mustelinus* Wilson.

*Hylocichla fuscescens fuscescens* Ridgway, Bull. U. S. Nat. Mus., 50, Part 4, p. 64, 1907 (monog., full bibliog.); Carriker, Ann. Carnegie Mus., 6, p. 743, 1910—Rio Sicsola, Costa Rica; Todd and Carriker, Ann. Carnegie Mus., 14, p. 403, 1922—Bonda, Santa Marta, Colombia; Naumburg, Bull. Amer. Mus. N. H., 60, p. 333, 1930—Matto Grosso.

*Hylocichla fuscescens* Ihering and Ihering, Cat. Faun. Braz., 1, p. 320, 1907 (range); Snethlage, Bol. Mus. Goeldi, 8, p. 498, 1914; Chubb, Birds Brit. Guiana, 2, p. 388, 1921—Camacusa, British Guiana.

*Range*.—Breeds in the Lower Canadian and Transition zones from Michigan, southern Ontario, southern Quebec, and Anticosti Island south to northern Indiana, northern Ohio, and New Jersey, and in the Alleghenies to North Carolina and northern Georgia; migrates through Yucatan and Central America; winters in Colombia, British Guiana, Venezuela,<sup>1</sup> and Brazil.

36: Massachusetts (Natick, 1); Connecticut (East Hartford, 19); New York (Sennett, 1; Peterboro, 1; Moravia, 1; Shelter Island, 1); New Jersey (Englewood, 1; Fort Lee, 1); District of Columbia (Washington, 1); Louisiana (Orleans County, 1); Illinois (Chicago, 4; Joliet, 1); Florida (Key West, 3).

**\**Hylocichla fuscescens salicicola* Ridgway. WILLOW THRUSH.**

*Hylocichla fuscescens salicicola* Ridgway, Proc. U. S. Nat. Mus., 4, p. 374, 1882—Fort Garland, Colorado (type in U. S. National Museum); idem, Bull. U. S. Nat. Mus., 50, Part 4, p. 67, 1907 (monog., full bibliog.); Bangs, Bull. Mus. Comp. Zool., 70, p. 331, 1930 (crit., note on type of *Hylocichla fuscescens fuliginosa* Howe); Naumburg, Bull. Amer. Mus. N. H., 60, p. 333, 1930—Chapada, Matto Grosso.

*Hylocichla fuscescens fuliginosa* Howe, Auk, 17, p. 271, 1900—Codray, Newfoundland (type in coll. of W. Brewster, now in Museum of Comparative Zoology, Cambridge, Mass.; cf. Bangs, Bull. Mus. Comp. Zool., 70, p. 331, 1930); Noble, Bull. Mus. Comp. Zool., 62, p. 565, 1919—Newfoundland (crit.).

*Range*.—Breeds in the Lower Canadian and Transition zones from southern British Columbia, central Alberta, central Saskatch-

<sup>1</sup> I have seen one specimen, male, Culata, March 10, 1888, S. Briceño, in the Berlepsch Collection.

ewan, southern Manitoba, and Wisconsin, also Newfoundland, south to central Oregon, Nevada, Utah, northern New Mexico, and central Iowa; winters in South America to Brazil; casual in migration to Indiana, Mississippi, and the eastern United States.

22: Saskatchewan (Prince Albert, 1); Wisconsin (Beaver Dam, 1); Illinois (Joliet, 10; Deerfield, 3; Beach, 2; Chicago, 3; Lake Forest, 2).

### Genus CATHARUS Bonaparte

*Catharus* Bonaparte, *Consp. Gen. Av.*, 1, p. 278, Mar., 1850—type, by monotypy, *Catharus immaculatus* Bonaparte=*Turdus aurantirostris* Hartlaub. *Malacocichla* Gould, *Proc. Zool. Soc. Lond.*, 22, "1854," p. 285, May, 1855—type, by monotypy, *Malacocichla dryas* Gould.

### \**Catharus dryas dryas* (Gould). GOULD'S NIGHTINGALE THRUSH.

*Malacocichla dryas* Gould, *Proc. Zool. Soc. Lond.*, 22, "1854," p. 285, pl. 75, pub. May, 1855—Guatemala (type in British Museum examined); Selater and Salvin, *Ibis*, 1859, p. 7—Vera Paz, Guatemala.

*Catharus dryas* Selater, *Proc. Zool. Soc. Lond.*, 27, p. 324, 1859—Guatemala (monog.); Baird, *Rev. Amer. Bds.*, 1, p. 10, 1864—Teleman, Guatemala (monog.); Salvin and Godman, *Biol. Centr.-Amer.*, Aves, 1, p. 7, pl. 2, fig. 2, 1879—part, Guatemala (Teleman and Volcan de Agua, above San Diego); Berlepsch and Taczanowski, *Proc. Zool. Soc. Lond.*, 1883, p. 538—Chimbo, Ecuador; idem, l.c., 1884, p. 283—Pedregal, El Placer, and Cayandede, Ecuador; Hartert, *Nov. Zool.*, 5, p. 479, 1898—Chimbo, Ecuador; Ridgway, *Bull. U. S. Nat. Mus.*, 50, Part 4, p. 21, 1907—part, Guatemala and western Ecuador.

*Turdus dryas* Seebohm, *Cat. Bds. Brit. Mus.*, 5, p. 204, 1881—part, Guatemala, etc.

*Catharus dryas dryas* Domaniewski, *Bull. Acad. Sci. Cracovie, Cl. Sci. Math. Nat.*, Sér. B, p. 134, 1918—Volcan de Agua, Guatemala (crit.); Chapman, *Bull. Amer. Mus. N. H.*, 55, p. 585, 1926—Cerro Manglar Alto, Chimbo, El Chiral, La Chonta, above Zaruma, Alamor, and Las Piñas, western Ecuador.

*Catharus maculatus* (not *Malacocichla maculata* Selater) Selater, *Proc. Zool. Soc. Lond.*, 28, p. 64, 1860—Pallatanga and Chillanes, Ecuador; idem, *Cat. Coll. Amer. Bds.*, p. 1, 1862—same localities.

*Catharus dryas maculatus* Domaniewski, *Bull. Acad. Sci. Cracovie, Cl. Sci. Math. Nat.*, Sér. B, p. 135, 1918—El Placer, Chimbo, and Pedregal, western Ecuador (crit.).

**Range.**—Subtropical zone of Guatemala and Honduras (Volcan de Puca), and western Ecuador.<sup>1</sup>

1: Ecuador (Puente de Chimbo, 1).

<sup>1</sup> It is with considerable misgivings that I refer west Ecuadorian birds to *C. d. dryas*. They differ from a single Vera Paz skin and an adult male from Honduras by smaller size, less olivaceous back, and more pronounced, blackish rather than grayish, spotting below. I feel almost certain that the receipt of an

**Catharus dryas maculatus (Sclater).<sup>1</sup> SCLATER'S NIGHTINGALE THRUSH.**

*Malacocichla maculata* Slater, Proc. Zool. Soc. Lond., 26, p. 64, April, 1858—Rio Napo, eastern Ecuador (type now in British Museum).

*Catharus maculatus* Slater, Proc. Zool. Soc. Lond., 27, p. 324, 1859—Rio Napo (monog.); Slater and Salvin, l.c., 1879, p. 591—Tilotilo, Bolivia; Taczanowski, l.c., 1882, p. 5—Huambo, Peru.

*Turdus dryas* (not *Malacocichla dryas* Gould) Seebohm, Cat. Bds. Brit. Mus., 5, p. 204, 1881—part, Colombia, Ecuador, and Bolivia.

*Catharus dryas* Taczanowski, Orn. Pér., 1, p. 484, 1884—Huambo, Peru (crit.); Ridgway, Bull. U. S. Nat. Mus., 50, Part 4, p. 21, 1907—part, Colombia (Bogotá), eastern Ecuador (Rio Napo), Peru (Huambo), and Bolivia; Chapman, Bull. Amer. Mus. N. H., 36, p. 538, 1917—La Candela and Andalucia (upper Magdalena Valley), and Buenavista, eastern Andes, Colombia.

*Catharus dryas sztolcmani* Domaniewski, Bull. Acad. Sci. Cracovie, Cl. Sci. Math. Nat., Sér. B, p. 136, 1918—Huambo, Peru (type in Warsaw Museum); Sztoleman and Domaniewski, Ann. Zool. Mus. Pol. Hist. Nat., 5, p. 157, 1927—Huambo (crit.).

*Catharus dryas maculatus* Chapman, Bull. Amer. Mus. N. H., 55, p. 585, 1926—Archidona, below Oyacachi, lower Sumaco, below San José, Ecuador; Chaupe and Huarandosa, Peru (crit.).

**Range.**—Subtropical zone of eastern Colombia, eastern Ecuador, Peru, and Bolivia.

**Catharus mexicanus mexicanus (Bonaparte). BLACK-HEADED NIGHTINGALE THRUSH.**

*Malacocichla mexicana* Bonaparte, Compt. Rend. Acad. Sci. Paris, 43, p. 998, 1856—"Jalappa," Mexico.<sup>2</sup>

adequate Guatemalan series will lead to the separation of the Ecuadorian form, as has been advocated by Domaniewski. This author errs, however, in his nomenclature, and while he is probably right in admitting three races of this Nightingale Thrush, it is the one from western Ecuador, not the Peruvian, that requires a name.

**Material examined.**—Guatemala: Vera Paz, 1.—Honduras: Volcan de Puca, 1.—Western Ecuador: Chimbo, 5; Pedregal, 1; Placer, 1.

<sup>1</sup>*Catharus dryas maculatus* (Slater): Differs from *C. d. dryas*, of Guatemala and Honduras, by smaller size, less olivaceous back, and more numerous and blacker spots underneath, this being particularly noticeable on chin and upper throat, which are nearly plain buffy in the typical form.

Birds from northern Peru (*sztolcmani*) are identical with topotypes from eastern Ecuador, and a single example from Bolivia (Yungas) is also similar. Bogotá skins, aside from the bleached under parts, are on average less spotted below. Fresh specimens from Colombia should be examined, but Chapman (l.c., p. 585) considers them inseparable from *maculatus*.

**Material examined.**—Colombia: "Bogotá," 4.—Ecuador: Archidona, 1; below Oyacachi, 2.—Peru: Chaupe, 3.—Bolivia: Yungas of La Paz, 1.

<sup>2</sup>The whereabouts of the type is unknown. The Paris Museum has a Guatemalan specimen from the Bonaparte Collection, but it is not marked "type" and can hardly be the original example, which, in the description, is stated to have been obtained by M. "Sallée" [=Auguste Sallé] at Jalapa, Vera Cruz, Mexico.

*Malacocichla mexicana* Selater, Proc. Zool. Soc. Lond., 25, p. 203, 1857—Jalapa, Vera Cruz, Mexico.

*Catharus mexicanus* Selater, Proc. Zool. Soc. Lond., 27, p. 324, 1859—part, southern Mexico, near Jalapa; idem, Cat. Coll. Amer. Bds., p. 1, 1862—"Vera Paz" [=Vera Cruz], Mexico; idem, Proc. Zool. Soc. Lond., 1864, p. 172—valley of Mexico; Sumichrast, Mem. Bost. Soc. N. H., 1, p. 542, 1869—temperate region of Vera Cruz; Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 6, 1879—part, Mexican localities and references; Seebohm, Cat. Bds. Brit. Mus., 5, p. 286, 1881—part, southern Mexico; Salvin and Godman, Ibis, 1889, p. 234—Jalapa, Mexico (crit.); Chapman, Bull. Amer. Mus. N. H., 10, p. 19, 1898—Jalapa, Mexico (crit.).

*Catharus mexicanus mexicanus* Ridgway, Bull. U. S. Nat. Mus., 50, Part 4, p. 23, 1907—part, Mexico in states of Vera Cruz and Mexico.

*Catharus mexicanus smithi* Nelson, Proc. Biol. Soc. Wash., 22, p. 49, 1909—Carricitos, Sierra Madre of the East, fifty miles northwest of Victoria, Tamaulipas, Mexico (type in U. S. National Museum); Phillips, Auk, 28, p. 80, 1911—Galinda, Rampahuila, Montelunga, and Realito, Tamaulipas.

**Range.**—Eastern Mexico, in states of Tamaulipas, Vera Cruz, and Mexico.<sup>1</sup>

### ***Catharus mexicanus cantator* Griscom.<sup>2</sup> GUATEMALAN BLACK-HEADED NIGHTINGALE THRUSH.**

*Catharus mexicanus cantator* Griscom, Amer. Mus. Nov., 438, p. 4, 1930—Finca Sepacuite, fifty miles east of Coban, Vera Paz, Guatemala (type in Dwight Collection, the American Museum of Natural History, New York).

*Malacocichla mexicana* (not of Bonaparte) Selater and Salvin, Ibis, 1859, p. 7—Coban, Guatemala.

*Catharus mexicanus* Selater, Proc. Zool. Soc. Lond., 27, p. 324, 1859—part, Vera Paz, Guatemala; Baird, Rev. Amer. Bds., 1, p. 11, 1864—Teleman, Guatemala; Salvin, Proc. Zool. Soc. Lond., 1866, p. 69—part, Vera Paz, Guatemala; Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 6, pl. 2, fig. 1, 1879—part, Guatemala (Coban and Teleman); Seebohm, Cat. Bds. Brit. Mus., 5, p. 286, 1881—part, Guatemala.

*Catharus mexicanus mexicanus* Ridgway, Bull. U. S. Nat. Mus., 50, Part 4, p. 22, 1907—part, Guatemala (Coban and Teleman).

**Range.**—Eastern Guatemala (Teleman; Coban; Finca Sepacuite; Barillos) and Honduras (San Pedro Mountains).

<sup>1</sup> Mr. O. Bangs (in litt.) writes that an ample series from both Tamaulipas and Vera Cruz shows *C. m. smithi* to be inseparable from typical *mexicanus*, a conclusion that has since been corroborated by Griscom (Amer. Mus. Nov., 438, p. 4, 1930).

<sup>2</sup> *Catharus mexicanus cantator* Griscom is described as being similar to *C. m. mexicanus*, but smaller (wing of males, 84.5–92) and generally darker in color, the upper parts having a bister brown tinge, while the chest, sides, and flanks are darker olive.

These divergences are barely apparent in an (unsexed) adult from Guatemala (Vera Paz) and a couple from the San Pedro Mountains, Honduras, when compared with five specimens from Jalapa, Vera Cruz. The material is, however, altogether insufficient to pass a definite judgment on the validity of the form.

**\**Catharus mexicanus fumosus* Ridgway. COSTA RICAN BLACK-HEADED NIGHTINGALE THRUSH.**

*Catharus fumosus* Ridgway, Proc. U. S. Nat. Mus., 10, p. 505, 1888—Costa Rica (type in U. S. National Museum); Zeledón, Anal. Mus. Nac. Costa Rica, 1, p. 104, 1887—Jiménez, Costa Rica.

*Catharus mexicanus* (not *Malacocychla mexicana* Bonaparte) Salvin, Proc. Zool. Soc. Lond., 1866, p. 69—part, Tucurriquí, Costa Rica; Lawrence, Ann. Lyc. Nat. Hist. N. Y., 9, p. 90, 1868—Costa Rica; Frantzius, Journ. Orn., 17, p. 289, 1869—Costa Rica; Salvin, Proc. Zool. Soc. Lond., 1870, p. 179—Calovévora and Cordillera del Chucú, Veraguas; Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 6, 1879—part, Costa Rica (Tucurriquí) and Veraguas (Calovévora, Cordillera del Chucú); Seebohm, Cat. Bds. Brit. Mus., 5, p. 286, 1881—part, Costa Rica, and Panama; Cherrie, Proc. U. S. Nat. Mus., 14, p. 517, 1891—Jiménez, Costa Rica (crit.); Underwood, Ibis, 1896, p. 432—Miravalles, Costa Rica.

*Catharus mexicanus mexicanus* Ridgway, Bull. U. S. Nat. Mus., 50, Part 4, p. 22, 1907—part, Costa Rica and Panama.

*Catharus mexicanus fumosus* Ridgway, Bull. U. S. Nat. Mus., 50, Part 4, p. 24, 1907—Costa Rica; Carriker, Ann. Carnegie Mus., 6, p. 748, 1910—La Vijagua, Cerro de Santa Maria, Cariblanco de Sarapiquí, Volcan de Irazú, Volcan de Turrialba, Guácimo, and Carrillo, Costa Rica (crit.); Peters, Bull. Mus. Comp. Zool., 71, p. 332, 1931—Boquete trail, Panama.

**Range.**—Nicaragua, Costa Rica (Caribbean slope and north-western portion of Pacific side), and western Panama (Chiriquí and Veraguas).

3: Costa Rica (Peralta, 1; La Iberia, Volcan de Turrialba, 1; Volcan de Miravalles, 1).

**\**Catharus fuscater hellmayri* Berlepsch.<sup>1</sup> HELLMAYR'S NIGHTINGALE THRUSH.**

*Catharus fuscater hellmayri* Berlepsch, Ornith. Monatsber., 10, p. 69, 1902—Chiriquí (type in Berlepsch Coll., now in Frankfort Museum, examined); Ridgway, Bull. U. S. Nat. Mus., 50, Part 4, p. 24, 1907—highlands of Costa Rica and western Panama (Chiriquí and Veraguas); Carriker, Ann. Carnegie Mus., 6, p. 748, 1910—Río Súcio, Santa Maria de Dota, Cariblanco de Sarapiquí, Carrillo, Tenorio, Volcan de Irazú, La Hondura, and Juan Viñas, Costa Rica (habits, nest, and eggs).

<sup>1</sup> *Catharus fuscater hellmayri* Berlepsch: Easily distinguished from *C. f. fuscater* by much darker under parts, the throat and foreneck being mouse gray like the chest (instead of whitish or pale buffish smoke gray), and somewhat darker, more blackish slate back, particularly in the male sex. Besides, the tail is noticeably shorter. Wing (males) 86–90; tail, 70–75.

Costa Rican birds appear to be similar to a topotypical series. No specimens from Veraguas seen.

**Material examined.**—Costa Rica: Carrillo, 3; Cariblanco de Sarapiquí, 4.—Panama: Boquete, Chiriquí, 12.

*Catharus fuscater* (not *Myioturdus fuscater* Lafresnaye) Lawrence, Ann. Lyc. Nat. Hist. N. Y., 9, p. 90, 1868—Cervantes, Costa Rica; Salvin, Proc. Zool. Soc. Lond., 1867, p. 132—Cordillera de Tolé, Veraguas (crit.); idem, l.c., 1870, p. 180—Calovévora and Cordillera del Chucú, Veraguas; Frantzius, Journ. Orn., 17, p. 289, 1869—Costa Rica; Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 5, 1879—part, Costa Rica and Panama; Seebohm, Cat. Bds. Brit. Mus., 5, p. 285, 1881—part, Panama and Costa Rica; Ridgway, Proc. U. S. Nat. Mus., 4, p. 333, 1881—"Cuscua" [= Pascua], La Palma, Costa Rica (crit.); Zeledón, Anal. Mus. Nac. Costa Rica, 1, p. 104, 1887—Jiménez and Río Súcio, Costa Rica; Bangs, Proc. New Engl. Zool. Cl., 3, p. 50, 1902—Boquete and Volcan de Chiriquí, Panama.

*Range*.—Subtropical zone of Costa Rica and western Panama (Chiriquí and Veraguas).

2: Panama (Boquete, Chiriquí, 2).

**\**Catharus fuscater sanctae-martae* Ridgway.<sup>1</sup> SANTA MARTA NIGHTINGALE THRUSH.**

*Catharus fuscater sanctae-martae* Ridgway, Smiths. Misc. Coll., 47, p. 112, Aug., 1904—Elhibano [= El Libano], Santa Marta, Colombia (type in Carnegie Museum); Todd and Carriker, Ann. Carnegie Mus., 14, p. 405, 1922—El Libano, Las Taguas, Sierra Nevada de Santa Marta (alt. 6,000 ft.), San Lorenzo, Pueblo Viejo, and San Miguel (crit., habits).

*Catharus fuscater* (not *Myioturdus fuscater* Lafresnaye) Bangs, Proc. Biol. Soc. Wash., 13, p. 108, 1899—Chirua (alt. 7,000 ft.); Allen, Bull. Amer. Mus. N. H., 13, p. 183, 1900—El Libano, Santa Marta.

*Range*.—Subtropical zone of Santa Marta region, northern Colombia.

2: Colombia (La Cumbre, Santa Marta, 2).

***Catharus fuscater fuscater* (Lafresnaye). COLOMBIAN NIGHTINGALE THRUSH.**

*Myioturdus fuscater* Lafresnaye, Rev. Zool., 8, p. 341, 1845—Bogotá, Colombia (type now in Museum of Comparative Zoology, Cambridge, Mass.; cf. Bangs, Bull. Mus. Comp. Zool., 70, p. 332, 1930).

*Catharus berlepschi* Lawrence, Proc. U. S. Nat. Mus., 10, p. 508, 1887—Cayandeled, western Ecuador (type now in the American Museum of Natural History, New York).

<sup>1</sup>*Catharus fuscater sanctae-martae* Ridgway: Very similar to *C. f. hellmayri* and agreeing in mouse gray to deep mouse gray coloration of throat, foreneck, and chest; but white on under parts more restricted, usually confined to a small area in the middle of the abdomen; gray of dorsal surface lighter, less blackish slate; size larger, especially tail longer. Wing (adult male) 90–93; tail, 77–86.

This form combines the size and lighter upper parts of *C. f. fuscater* with the deeply colored under side of *C. f. hellmayri*, whose principal character is carried to the extreme by the reduction of the white abdominal zone.

*Material examined*.—Colombia, Santa Marta region: Chirua, 1; San Miguel, 2; Las Taguas, 1; Sierra Nevada de Santa Marta, 1; San Lorenzo, 1; Pueblo Viejo, 1; El Libano, 1; La Cumbre, 2.

*Catharus fuscater mirabilis* Nelson, Smiths. Misc. Coll., 60, No. 3, p. 24, Sept., 1912—Mount Pirri, near head of Rio Limón, eastern Panama (type in U. S. National Museum).

*Catharus fuscater* Sclater, Proc. Zool. Soc. Lond., 27, p. 136, 1859—Pallatanga, Ecuador; idem, l.c., p. 324, 1859—Colombia and Ecuador (Pallatanga); Seeböhm, Cat. Bds. Brit. Mus., 5, p. 285, 1881—part, Colombia and Ecuador; Berlepsch and Taczanowski, Proc. Zool. Soc. Lond., 1884, p. 283—Cayandeled, Ecuador; Goodfellow, Ibis, 1901, p. 309—"Mindo," Ecuador.

*Catharus fuscater fuscater* Chapman, Bull. Amer. Mus. N. H., 55, p. 584, 1926—above Mindo, Cayandeled, El Chiral, above Zaruma, Salvias, San Bartolo, Alamor, Celica, Puente del Rio Quijos, Huigra, and Chunchi, Ecuador (crit.).

**Range.**—Subtropical zone of eastern and western Ecuador, the eastern Andes of Colombia, western Venezuela (Cordillera of Mérida), and apparently eastern Panama (Mounts Pirri and Tacarcuna).<sup>1</sup>

### **Catharus fuscater caniceps** Chapman.<sup>2</sup> CHAPMAN'S NIGHTINGALE THRUSH.

*Catharus fuscater caniceps* Chapman, Amer. Mus. Nov., 138, p. 14, Oct., 1924—Palambra, Dept. Piura, Peru (type in the American Museum of Natural History, New York).

*Catharus fuscater* (not *Myioturdus fuscater* Lafresnaye) Taczanowski, Proc. Zool. Soc. Lond., 1874, p. 504—Chilpes; idem, l.c., 1879, p. 222—Tambillo; idem, l.c., 1882, p. 4—Chachapoyas; idem, Orn. Pér., 1, p. 483, 1884—Chilpes, Tambillo, and Chachapoyas, Peru (crit.); Salvin, Nov. Zool., 2, p. 2, 1895—Cajabamba and Succha, Huamachuco, Peru.

<sup>1</sup> Three adults from Mérida (Culata) agree in every respect with a series from Santander and "Bogotá" skins. Birds from Ecuador are nowise different, the characters indicated by Lawrence being those that separate them from Central American specimens (*hellmayri*), which the describer erroneously assumed to be typical *fuscater*. Nelson, when discriminating *C. f. mirabilis*, likewise compared his supposed new form with *hellmayri*, from which it is indeed easily distinguishable. On studying eight topotypes, I fail, however, to see how it can be told apart from *C. f. fuscater* of Colombia. In whiteness of under parts and coloration of back the series from Mount Pirri exactly duplicates birds from Santander, and deviates only by rather shorter tail (68–73 against 76–83) in the direction of *hellmayri*, which seems too trifling a feature to warrant the recognition of a separate race in eastern Panama.

**Material examined.**—Ecuador: Cayandeled, 2; above Mindo, 1; Zaruma, 2.—Colombia, eastern Andes: Bogotá, 3; Santander, Peña Blanca, 3; Cachiri, 1; Pueblo Nuevo, 1; La Palmita, 1; Las Ventanas, 1.—Venezuela: Culata, Mérida, 3.—Panama: Mount Pirri, 8.

<sup>2</sup> *Catharus fuscater caniceps* Chapman: Very close to *C. f. fuscater*, but not so blackish above, the pileum nearly concolorous with the back; ivory abdominal area more extensive; the chest but slightly tinged with grayish. Wing (male), 91–92; tail, 82–84.

We have not seen any birds from central Peru, but from Taczanowski's remarks on a specimen from Chilpes (Junín) it would appear that they are referable to the present form rather than *C. f. mentalis*.

**Material examined.**—Peru: Cajabamba, 1; Succha, Huamachuco, 1.



*Range*.—Subtropical zone of northern and central Peru (in depts. of Piura, Amazonas, Cajamarca, Libertad, and Junín).

**Catharus fuscater mentalis** Sclater and Salvin.<sup>1</sup> BOLIVIAN NIGHTINGALE THRUSH.

*Catharus mentalis* Sclater and Salvin, Proc. Zool. Soc. Lond., 1876, p. 352—"Suape" [=Suapi], near Tilotilo, Yungas of La Paz, Bolivia (type now in British Museum); idem, l.c., 1879, p. 591—Suapi; Seebohm, Cat. Bds. Brit. Mus., 5, p. 285, 1881—Bolivia.

*Range*.—Subtropical zone of northern Bolivia (Yungas of La Paz).

**Catharus occidentalis olivascens** Nelson.<sup>2</sup> OLIVE NIGHTINGALE THRUSH.

*Catharus olivascens* Nelson, Proc. Biol. Soc. Wash., 13, p. 31, 1899—Sierra Madre, 65 miles east of Batopilas, Chihuahua, Mexico (type in U. S. National Museum examined).

*Catharus occidentalis olivascens* Ridgway, Bull. U. S. Nat. Mus., 50, Part 4, p. 27, 1907—northwestern Mexico, in State of Chihuahua (monog.).

*Range*.—Northern Mexico, in State of Chihuahua (Sierra Madre, Colonia Garcia, Pinos Altos, Jesus Maria, Bravo).

**\*Catharus occidentalis fulvescens** Nelson.<sup>3</sup> FULVOUS NIGHTINGALE THRUSH.

*Catharus occidentalis fulvescens* Nelson, Auk, 14, p. 75, 1897—Amecameca, Mexico, Mexico (type in U. S. National Museum); Ridgway, Bull. U. S. Nat. Mus., 50, Part 4, p. 27, 1907—southern Mexico, in states of Mexico, Hidalgo, Morelos, Guerrero, Michoacan, and Jalisco (monog.); Phillips, Auk, 28, p. 80, 1911—Galindo, Tamaulipas (spec. examined).

<sup>1</sup> *Catharus fuscater mentalis* Sclater and Salvin: Differs from all the preceding races by having the upper parts, throat, chest, and sides tinged with brownish; size decidedly smaller. Wing, 84, 85, (female) 78–84; tail, 76, (female) 70–76.

*Material examined*.—Bolivia, Yungas of La Paz: Sandillani, 3; Chaco, 2; Bellavista, 2.

<sup>2</sup> *Catharus occidentalis olivascens* Nelson: Nearly related to *C. o. fulvescens*, but easily distinguished by much duller and paler upper parts. The color of the back and rump varies from grayish light brownish olive to brownish isabella color, while the pileum is much less reddish, sayal brown rather than amber brown or sudan brown. Wing, 90–91, (female) 86; tail, 76, (female) 72; bill, 14–15.

*Material examined*.—Chihuahua: Sierra Madre, 65 miles east of Batopilas, 1 (the type); near Colonia Garcia, 3.

<sup>3</sup> *Catharus occidentalis fulvescens* Nelson: Similar to *C. o. occidentalis*, but upper parts decidedly lighter as well as more fulvescent; the back, scapulars, and rump Dresden brown, sometimes approaching Brussels brown, instead of raw umber, and the pileum clearer rufous, more tawny.

The degree of rufescence above varies a good deal regardless of locality, and certain specimens, by their olivaceous coloration, exhibit an undeniable tendency in the direction of *C. o. olivascens*. Seven birds (in good plumage)

*Catharus frantzii omiltemensis* Ridgway, Proc. Biol. Soc. Wash., 18, p. 213, 1905—Omilteme, Guerrero, Mexico (type in U. S. National Museum); idem, Bull. U. S. Nat. Mus., 50, Part 4, p. 27, 1907—Omilteme, Guerrero.

*Catharus occidentalis* (not of Sclater) Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 4, 1879—part, vicinity of Mexico City.

*Catharus occidentalis olivascens* (not of Nelson) Griscom, Amer. Mus. Nov., 293, p. 6, 1928—Miquihuana, Tamaulipas.

**Range.**—Mountains of Mexico, in states of Mexico, Morelos, Guerrero, Michoacan, Jalisco, Hidalgo, and Tamaulipas (Galindo, Miquihuana).

2: Mexico (Sierra Nevada de Colima, Jalisco, 1; unspecified, 1).

***Catharus occidentalis occidentalis* Sclater.<sup>1</sup> RUSSET NIGHT-INGALE THRUSH.**

*Catharus occidentalis* Sclater, Proc. Zool. Soc. Lond., 27, p. 323, 1859—Totontepec, Oaxaca, Mexico (type in coll. P. L. Sclater, now in British Museum); idem, l.c., p. 370, 1859—Totontepec; idem, Cat. Coll. Amer. Bds., p. 1, 1862—Totontepec; Baird, Rev. Amer. Bds., 1, p. 8, 1864—Orizaba (crit.); Sumichrast, Mem. Bost. Soc. N. H., 1, p. 542, 1869—mountains of Orizaba; Lawrence, Bull. U. S. Nat. Mus., 4, p. 11, 1876—Sierra Madre near Zapotitlan, Puebla; Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 4, 1879—part, Totontepec, Oaxaca, Orizaba, and Sierra Madre near Zapotitlan; Seebohm, Cat. Bds. Brit. Mus., 5, p. 291, 1881—southern Mexico.

*Catharus occidentalis occidentalis* Ridgway, Bull. U. S. Nat. Mus., 50, Part 4, p. 26, 1907—southeastern Mexico, in states of Vera Cruz, Puebla, and Oaxaca (monog.).

**Range.**—Mountains of southeastern Mexico, in states of Vera Cruz (Jalapa; Orizaba), Puebla (Sierra Madre, near Zapotitlan; Mount Orizaba), and Oaxaca (Totontepec; Mount Zempoaltepec).

from Tamaulipas (Galindo) appear to be inseparable from *fulvescens*. There can be hardly any doubt that *C. f. omiltemense* is synonymous with the present form. I have before me three topotypes from Omilteme collected by Nelson and Goldman in May, 1903—one of them, an adult female, shot on the same day (May 19) as the type—which differ nowise from Jalisco specimens. The buffy basis to the inner web of the remiges, upon whose absence Mr. Ridgway obviously laid much stress, is an exceedingly variable character in this thrush; it being lacking in one, but just as well developed as in birds from other localities in the two remaining examples from Omilteme. The same variation, furthermore, is observable in a series of typical *occidentalis* from Mount Zempoaltepec, Oaxaca.

**Material examined.**—Mexico: valley of Mexico, 2.—Hidalgo: El Chico, 2; Tulancingo, 1.—Guerrero: mountains near Chilpancingo, 2; Omilteme, 3.—Michoacan: Mount Tancitaro, 1.—Jalisco: San Sebastian, 1; Sierra Nevada de Colima, 1; Sierra de Cuyutlan, 1; La Cumbre Mascota, 2.—Tamaulipas: Galindo, 7.

<sup>1</sup> *Catharus o. occidentalis* Sclater is the darkest of the three Mexican races, the back and rump being a dark raw umber, the pileum cinnamon brown or russet. Specimens from Vera Cruz agree with a topotypical series.

**Material examined.**—Vera Cruz: Jalapa, 4; Mount Orizaba, 1.—Oaxaca: Totontepec, 2; Mount Zempoaltepec, 5.

**\*Catharus occidentalis alticola** Salvin and Godman.<sup>1</sup> GUATEMALAN NIGHTINGALE THRUSH.

*Catharus alticola* Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 3, 1879—Volcan de Fuego, Guatemala (type now in British Museum); Seeböhm, Cat. Bds. Brit. Mus., 5, p. 291, 1881—Volcan de Fuego, Guatemala.

*Catharus frantzii alticola* Nelson, Auk, 15, p. 161, 1898—Volcan de Santa Maria, Guatemala, and Pinabete, Chiapas; Ridgway, Bull. U. S. Nat. Mus., 50, Part 4, p. 29, 1907—Guatemala and Chiapas (monog.); Dearborn, Field Mus. Nat. Hist., Orn. Ser., 1, p. 138, 1907—Sierra de Santa Elena, near Tecpam, Guatemala.

*Catharus frantzii* (not Cabanis) Salvin, Ibis, 1866, p. 190—Dueñas, Guatemala (crit.).

*Catharus frantzii* [sic] *juancitonis* Stone, Proc. Acad. Nat. Sci. Phila., 83, p. 2, 1931—San Juancito, Honduras (type in the Academy of Natural Sciences, Philadelphia).

*Range*.—Highlands of southeastern Mexico, in State of Chiapas (Pinabete), Guatemala, El Salvador, and Honduras.

4: Guatemala (Sierra de Santa Elena, near Tecpam, 4).

**\*Catharus occidentalis frantzii** Cabanis. FRANTZIUS'S NIGHTINGALE THRUSH.

*Catharus frantzii* Cabanis, Journ. Orn., 8, "Sept., 1860," p. 323, pub. Jan., 1861—Volcan de Irazú, Costa Rica (type in Berlin Museum); Baird, Rev. Amer. Bds., 1, p. 9, 1864—Costa Rica (crit.); Lawrence, Ann. Lyc. Nat. Hist. N. Y., 9, p. 90, 1868—San José and Rancho Redondo, Costa Rica; Frantz, Journ. Orn., 17, p. 289, 1869—Volcan de Irazú, Potrero Cerrado, La Palma, and Rancho Redondo, Costa Rica; Boucard, Proc. Zool. Soc. Lond., 1878, p. 50—Navarro, Costa Rica; Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 4, 1879—Costa Rica; Seeböhm, Cat. Bds. Brit. Mus., 5, p. 290, 1881—Costa Rica; Ridgway, Proc. U. S. Nat. Mus., 5, p. 494, 1883—Volcan de Irazú, Costa Rica; Zeledón, Anal. Mus. Nac. Costa Rica, 1, p. 104, 1887—Volcan de Irazú; Bangs, Proc. New Engl. Zool. Cl., 3, p. 50, 1902—Boquete and Volcan de Chiriquí, Chiriquí.

*Catharus frantzii frantzii* Ridgway, Bull. U. S. Nat. Mus., 50, Part 4, p. 28, 1907—Costa Rica and Panama (monog.); Carriker, Ann. Carnegie Mus., 6, p. 747, 1910—Coliblanco, Barba, El Copey, La Lagunaria, Las Vueltas, Santa Maria de Dota, Azahar de Cartago, Escazú, La Hondura, Vara Blanca de Sarapiquí, Volcan de Irazú, and Ujarrás de Térraba, Costa Rica (habits, nest, and eggs).

<sup>1</sup> *Catharus occidentalis alticola* Salvin and Godman, an exceedingly poor form, is hardly distinguishable from *C. o. frantzii* by on average more olivaceous (less rufescent) color of the back. The pileum is sometimes, but by no means always, slightly duller rufous. There is absolutely no difference in the coloration of the under parts, if specimens in similar plumage are compared, nor can I discover any constant variation in size between the two forms. They may even turn out to be inseparable when more comprehensive material becomes available. I do not see any possibility of there being another race in Honduras intermediate between *frantzii* and *alticola*, which we are just able to maintain on slight average characters.

*Material examined*.—Guatemala: Sierra de Santa Elena, 4; Volcan de Fuego, 4.

*Range*.—Highlands of Costa Rica and western Panama (Boquete; Volcan de Chiriquí).<sup>1</sup>

6: Costa Rica (La Estrella de Cartago, 1; Volcan de Irazú, 4; Boruca, 1).

**Catharus aurantirostris clarus** Jouy. JOUY'S NIGHTINGALE THRUSH.

*Catharus melpomene clarus* Jouy, Proc. U. S. Nat. Mus., 14, pp. 773, 774, 1894—Barránca Ibarra, Jalisco, Mexico (type in U. S. National Museum); Hellmayr, Journ. Orn., 50, p. 46, 1902—Acatan, Jalisco; Ridgway, Bull. U. S. Nat. Mus., 50, Part 4, p. 30, 1907—central and western Mexico (monog.).

*Range*.—Highlands of central and western Mexico, in states of Puebla (Atlixco), Mexico (Amecameca, Ajusco), Hidalgo (El Chico), Morelos (Huitzilac), Guerrero (near Chilpancingo, Omilteme), Michoacan (Mount Tancitaro, Los Reyes, Patzcuaro), Jalisco (Acatan, Barránca Ibarra, San Sebastian, Sierra Madre de Colima), Chihuahua (Jesus Maria, Bravo), and Nayarit (Tepic).<sup>2</sup>

**\*Catharus aurantirostris melpomene** (Cabanis). NIGHTINGALE THRUSH.

*Turdus melpomene* Cabanis, Mus. Hein., 1, p. 5, October, 1851<sup>3</sup>—Jalapa, Vera Cruz, Mexico (type in Berlin Museum examined).

*Catharus aurantirostris* (not of Hartlaub) Sclater, Proc. Zool. Soc. Lond., 24, p. 294, 1856—Cordoba, Vera Cruz (crit.).

*Catharus melpomene* Sclater, Proc. Zool. Soc. Lond., 26, p. 97, 1858—southern Mexico (crit.); idem, l.c., 27, p. 323, 1859—southern Mexico (Cordoba, Orizaba) and Guatemala (monog.); idem, l.c., p. 362, 1859—Jalapa; idem, l.c., p. 370, 1859—Totontepec, Oaxaca; Sclater and Salvin, Ibis, 1859, p. 6—Guatemala; idem, Ibis, 1860, p. 29—Dueñas, Guatemala; Baird, Rev. Amer. Bds., 1, p. 7, 1864—part, Cordoba and Orizaba, Mexico, and Dueñas, Guatemala (crit.); Sumichrast, Mem. Bost. Soc. Nat. Hist., 1, p. 542, 1869—Vera Cruz; Salvin and Godman, Biol. Centr.-Amer., Aves, 1,

<sup>1</sup> Additional material examined.—Costa Rica: Rancho Redondo, 2; Barba, 2; La Estrella de Cartago, 2; unspecified, 3.—Panama: Boquete, 3.

<sup>2</sup> An adult male from Puebla (Atlixco) shows the racial characters, viz. large size (wing, 87) and pale (olivaceous) upper parts, in extreme degree. One from Guerrero (Omilteme) and one from Michoacan (Los Reyes), while equally large, approach *melpomene* in the rufous brown tone of the dorsal surface.

*Material examined*.—Nayarit: Tepic, 1.—Jalisco: Acatan, 2; San Sebastian, 1; Barránca Ibarra, 2.—Michoacan: Los Reyes, 2.—Guerrero: Omilteme, 1.—Puebla: Atlixco, 1.

<sup>3</sup> Even if the first two sheets of the "Museum Heineanum" were in circulation in the latter part of 1850 (cf. Zimmer, Field Mus. Nat. Hist., Zool. Ser., 16, p. 122, 1926), it is pretty certain that *Turdus aurantirostris* Hartlaub, published in the March issue of the "Revue et Magasin de Zoologie," has priority, though this serial might have been in arrears by one or two months. It seems, therefore, unavoidable to accept Hartlaub's term as specific name for the group.

p. 2, 1879—part, Mexico and Guatemala; Seebohm, Cat. Bds. Brit. Mus., 5, p. 288, 1881—part, Mexico and Guatemala; Chapman, Bull. Amer. Mus. N. H., 10, p. 18, 1898—Jalapa (habits, song).

*Catharus melpomene melpomene* Hellmayr, Journ. Orn., 50, p. 46, 1902—range (excl. tableland of central Mexico); Ridgway, Bull. U. S. Nat. Mus., 50, Part 4, p. 29, 1907—southeastern Mexico, in states of Vera Cruz and Oaxaca, and Guatemala (monog.).

*Range*.—Highlands of southeastern Mexico, in states of Vera Cruz (Jalapa, Orizaba, Cordoba, Jico, Teocelo), Oaxaca (Totontepec), Chiapas (Comitán), and Guatemala.<sup>1</sup>

1: Mexico (Jalapa, Vera Cruz, 1).

**Catharus aurantiirostris bangsi** Dickey and van Rossem.<sup>2</sup>  
BANGS'S NIGHTINGALE THRUSH.

*Catharus melpomene bangsi* Dickey and van Rossem, Proc. Biol. Soc. Wash., 38, p. 135, 1925—Volcan de San Salvador, Salvador (type in collection of Donald R. Dickey, Pasadena, California).

(?) *Catharus melpomene worthi* Stone, Proc. Acad. Nat. Sci. Phila., 83, p. 2, 1931—San Juancito, Honduras (type in the Academy of Natural Sciences, Philadelphia).

*Range*.—Upper Tropical zone of El Salvador and (?) Honduras.

**\*Catharus aurantiirostris costaricensis** Hellmayr.<sup>3</sup> COSTA RICAN NIGHTINGALE THRUSH.

*Catharus melpomene costaricensis* Hellmayr, Journ. Orn., 50, p. 45, 1902—Costa Rica [=San José] (type in Berlepsch Collection, now in Frankfurt)

<sup>1</sup>Two Guatemalan birds, by slightly darker under parts, form the transition to *C. a. bangsi*.

*Material examined*.—Mexico: Jalapa, Vera Cruz (including the type), 4; Jico, Vera Cruz, 2; Teocelo, Vera Cruz, 2; Comitán, Chiapas, 2.—Guatemala: Volcan de Fuego, 2.

<sup>2</sup>*Catharus aurantiirostris bangsi* Dickey and van Rossem: Similar above to *C. a. melpomene*, but gray of under parts much darker as well as more extensive, leaving but a restricted zone along the middle of the abdomen dingy white. Wing, (male) 77–81, (female) 78; tail, 63–67.

This form is a connecting link between the Mexican races and *C. a. costaricensis*, combining, as it does, the strongly rufescent dorsal surface of *melpomene* with the dark gray under parts of the Costa Rican representative.

While we have not seen any material from Honduras, it appears from Dr. Stone's description that *C. m. worthi*, based on two specimens from San Juancito, must be exceedingly close to, if not identical with, the Salvador form. The amount of gray streaking on the throat is of no consequence in these birds, and, as the intensity of the gray color underneath is likewise subject to variation, we fail to recognize in the diagnosis of the Honduras birds any essential divergency from the characters of *bangsi*.

*Material examined*.—El Salvador: Volcan de San Salvador [=San Rafael], 2; Mount Cacaguatique, Dept. San Miguel, 2.

<sup>3</sup>*Catharus aurantiirostris costaricensis* Hellmayr is easily distinguished from *C. a. birchalli* (and even more so from *C. a. aurantiirostris*) by much more rufous (bright tawny) wings and deeper gray chest. From the Mexican races (*melpomene*

Museum); Ridgway, Bull. U. S. Nat. Mus., 50, Part 4, p. 31, 1907—Grecia, San José, Cartago, Navarro, Quebrada Honda, and Monte Redondo, Costa Rica; Carriker, Ann. Carnegie Mus., 6, p. 746, 1910—Escazú, Carrillo, Azahar de Cartago, San Vicente, Juan Vías, Tierra Blanca, and San Pedro de San José, Costa Rica.

*Catharus melpomene* (not of Cabanis, 1851) Cabanis, Journ. Orn., 8, p. 322, 1860—Ingles, Costa Rica; Baird, Rev. Amer. Bds., 1, p. 7, 1864—part, San José, Costa Rica; Lawrence, Ann. Lyc. Nat. Hist. N. Y., 9, p. 90, 1868—Quebrada Honda, San José, and Grecia, Costa Rica; Frantzius, Journ. Orn., 17, p. 289, 1869—highlands of San José, Costa Rica (habits); Boucard, Proc. Zool. Soc. Lond., 1878, p. 50—San José and Cartago, Costa Rica (habits); Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 2, 1879—part, Costa Rica; Seebohm, Cat. Bds. Brit. Mus., 5, p. 288, 1881—part, Costa Rica (crit.); Zeledón, Anal. Mus. Nac. Costa Rica, 1, p. 104, 1887—Cartago, San José, Aserrí, and Monte Redondo, Costa Rica; Cherrie, Auk, 8, p. 272, 1891—San José, Costa Rica (habits, nest, and eggs); idem, Proc. U. S. Nat. Mus., 14, p. 517, 1891—San José, Costa Rica (crit.).

*Catharus melpomene albidior* Miller and Griscom, Amer. Mus. Nov., 183, p. 2, 1923—between Jinotega and San Rafael del Norte, Nicaragua (type in the American Museum of Natural History, New York).

*Range*.—Upper Tropical zone of Costa Rica and Nicaragua.<sup>1</sup>

17: Costa Rica (San José, 3; Cartago, 6; Agua Caliente, 1; Ojo Ancho, Nicoya, 7).

**\**Catharus aurantiirostris aurantiirostris* (Hartlaub). ORANGE-BILLED NIGHTINGALE THRUSH.**

*Turdus aurantiirostris* Hartlaub, Rev. Mag. Zool., (2), 1, p. 158, March, 1850—Venezuela; idem, Contrib. Orn., p. 80, pl. 72, 1851—locality specified as Caracas (type in Hamburg Museum; cf. Bolau, Mitt. Naturhist. Mus. Hamburg, 15, p. 57, 1898).

*Catharus immaculatus* Bonaparte, Consp. Av., 1, p. 278, late in 1850 or early in 1851—Caracas, Venezuela (type in Leiden Museum).

*Catharus melpomene sierrae* Hellmayr, Verh. Orn. Ges. Bay., 14, p. 126, June, 1919—La Concepción, Santa Marta, Colombia (type in Munich Museum); idem, Arch. Naturg., 90, A, Heft 2, p. 135, 1924—Sierra Nevada of Santa Marta (diag.).

and *clarus*) it differs by smaller size, particularly shorter tail, and duller, less rufescent upper parts.

Comparison of ten Nicaraguan skins (*albidior*) with twenty-five from Costa Rica reveals their absolute identity. Upper and under parts vary within the same limits in the two series, white-throated individuals and others with distinct grayish streaking being found alike in Costa Rica and Nicaragua. The alleged difference in size is non-existent. Adult males from Costa Rica measure: wing, 77–84; tail, 61–67; from Nicaragua: wing, 78–82; tail, 62–67.

*Additional material examined*.—Costa Rica: San José, 10.—Nicaragua: Ocotal, 1; San Rafael del Norte, 4; between San Rafael del Norte and Jinotega, 5.

<sup>1</sup> Birds from Ojo Ancho, Nicoya Peninsula, Costa Rica, have since been described as *C. melpomene bathoica* Bangs and Griscom (Proc. New Engl. Zool. Cl., 13, p. 51, 1932).

*Catharus aurantiirostris* Sclater, Proc. Zool. Soc. Lond., 27, p. 323, 1859—Venezuela (monog.); Seebohm, Cat. Bds. Brit. Mus., 5, p. 289, 1881—Caracas; Bangs, Proc. Biol. Soc. Wash., 12, p. 160, 1898—Pueblo Viejo, Santa Marta; idem, l.c., 12, p. 181, 1898—Palomina, Santa Marta; Allen, Bull. Amer. Mus. N. H., 13, p. 183, 1900—Pueblo Viejo and Palomina (ex Bangs).

*Catharus melpomene aurantiirostris* Hellmayr, Journ. Orn., 50, p. 46, 1902—Caracas and Santa Marta; Todd and Carriker, Ann. Carnegie Mus., 14, p. 405, 1922—San Francisco, Cincinnati, Pueblo Viejo, and Chirua, Santa Marta (crit., habits); Hellmayr, Arch. Naturg., 90, A, Heft 2, pp. 134, 135, 1924—Rio Maméra and Loma Redonda, Caracas region, Venezuela (crit.); Darlington, Bull. Mus. Comp. Zool., 71, p. 407, 1931—Cerro La Aguja, Colombia.

*Catharus birchalli* Seebohm, Cat. Bds. Brit. Mus., 5, p. 289, 1881—part, Bogotá (spec. examined); Chapman, Bull. Amer. Mus. N. H., 36, p. 538, 1917—near San Agustín and Andalucía, Magdalena Valley, Colombia (spec. examined).

*Catharus melpomene birchalli* Hellmayr, Journ. Orn., 50, p. 46, 1902—part, Bogotá.

**Range.**—Coast ranges of Venezuela (in Federal District and in states of Miranda, Aragua, Carabobo, and Lara) and eastern Colombia (Santa Marta region; eastern Andes; Magdalena Valley), in the Upper Tropical zone.<sup>1</sup>

5: Venezuela (Caracas, 5).

### ***Catharus aurantiirostris birchalli* Seebohm.<sup>2</sup> BIRCHALL'S NIGHT-INGALE THRUSH.**

<sup>1</sup> With the much more adequate material now available it seems impracticable to maintain *C. m. sierrae*, as none of the supposed differences, such as more rufescent coloration of dorsal surface, olive brownish instead of grayish flanks and streaking on lateral portion of throat, or duller grayish chest, holds when series from Venezuela and Colombia are compared. The only average point of distinction rests upon the more rufescent (less olivaceous) external edges to the remiges, but even this is far from constant. An adult female from the Sierra de Carabobo and another from La Cumbre de Valencia are just as rufous-winged as any in the Santa Marta series, whereas three skins from the Magdalena Valley, in the pronouncedly olivaceous edging, fully agree with the Venezuelan average. As mentioned under the succeeding form, specimens are occasionally found in the range of *aurantiirostris*, which are very nearly as rufescent above as *C. a. birchalli*, the Bogotá skin referred to by Seebohm in the original description being one of these aberrant individuals; but as a rule, the present race is recognizable by its much more olivaceous coloration.

**Material examined.**—Venezuela: Pié del Cerro, Aragua, 3; Colonia Tovar, Aragua, 1; Caracas, 6; Rio Maméra, Caracas, 1; Loma Redonda, near Caracas, 2; Cotiza, Caracas, 3; La Cumbre de Valencia, Carabobo, 1; Sierra de Carabobo, 2; Anzoategui, Lara, 2.—Colombia, Santa Marta: La Concepción, 4; Chirua, 2; Pueblo Viejo, 3; "Bogotá," 2; Pueblo Nuevo, Santander, 1; Andalucía, eastern Andes, Huila, 1; near San Agustín, Huila, 2.

<sup>2</sup> *Catharus aurantiirostris birchalli* Seebohm: Very close to *C. a. aurantiirostris*, but upper parts, including wings and tail, decidedly more rufescent. While this distinction holds good in far the greater number of specimens when series are compared, single individuals are not always separable, the most dull-colored birds

*Catharus birchalli* Seebohm, Cat. Bds. Brit. Mus., 5, p. 289, 1881—part, types from "Oronoco valley" [=mountains of northeastern Venezuela, State of Sucre] in British Museum examined.<sup>1</sup>

*Catharus melpomene birchalli* Hellmayr, Journ. Orn., 50, p. 46, 1902—part, "Orinoco-collections"; idem, Arch. Naturg., 90, A, Heft 2, p. 135, 1924—Trinidad (Aripo) and northeastern Venezuela (crit.); Chapman, Amer. Mus. Nov., 191, p. 10, 1925—Neverí and Cocallar [Sucre], Venezuela.

*Catharus aurantiirostris* (not *Turdus aurantiirostris* Hartlaub) Sclater and Salvin, Proc. Zool. Soc. Lond., 1868, pp. 166, 169—Caripé [Sucre], Venezuela; Phelps, Auk, 14, pp. 363, 367, 1897—San Antonio and Caripé [Sucre], Venezuela.

*Catharus melpomene costaricensis* (not of Hellmayr) Cherrie, Sci. Bull., Mus. Brookl. Inst., 1, p. 354, 1908—Heights of Aripo, Trinidad.

**Range.**—Mountains of Trinidad (Aripo) and northeastern Venezuela, in State of Sucre (Caripé; Quebrada Secca; San Antonio; La Tigrera; Neverí; Cocallar; La Elvecia and El Yaque, near Cumanacoa).

**\**Catharus griseiceps russatus* Griscom.<sup>2</sup> COSTA RICAN GRAY-HEADED NIGHTINGALE THRUSH.**

*Catharus griseiceps russatus* Griscom, Amer. Mus. Nov., 141, p. 6, Oct., 1924—Boruca, Costa Rica (type in the American Museum of Natural History, New York).

*Catharus griseiceps* (not of Salvin) Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 6, 1879—part, Volcan de Chiriquí; Bangs, Proc. New Engl. Zool. Cl., 3, p. 50, 1902—Boquete, Chiriquí; idem, Auk, 24, p. 304, 1907—

from Trinidad and Sucre being closely approached and even matched by certain unusually bright-backed examples from northwestern Venezuela.

Ten skins from the mountains of Sucre agree with a large series from Trinidad, and vary within the same limits.

**Material examined.**—Trinidad: Aripo (at elevations of 1,900 feet and upwards), 26.—Venezuela, Sucre: La Tigrera, 6; Quebrada Secca, 2; La Elvecia, 1; El Yaque, near Cumanacoa, 1; "Orinoco valley," 2 (the types).

<sup>1</sup> Seebohm mentions as localities "Bogotá" and the "Oronoco valley." There are in the British Museum, besides an unusually rufous-backed Bogotá skin of *C. a. aurantiirostris*, two "Orinoco" specimens, both marked "type" in Seebohm's own handwriting, which resemble the average from Trinidad. It is now an established fact that many of the so-called "Orinoco" skins actually originated in the mountainous districts of Sucre, and not in the "Orinoco" basin. Accordingly, we suggested (Verh. Orn. Ges. Bay., 14, p. 126, 1919) the mountains inland of Cumaná as type locality for *C. birchalli*.

<sup>2</sup> *Catharus griseiceps russatus* Griscom: Similar to *C. g. griseiceps*, but upper parts much more rufescent; the back, scapulars, and rump Dresden brown to raw umber instead of olivaceous brown; the wing and tail edges bright tawny brown instead of olive brown with a faint tinge of rufescent; gray of ventral surface rather paler.

Birds from Boquete, Chiriquí, seem to be inseparable from those of Costa Rica.

**Material examined.**—Costa Rica: Boruca, 8; El General, 2.—Panama: Boquete, Chiriquí, 8.



Boruca, Paso Real, and Barranca de Térraba, Costa Rica (crit.): Ridgway, Bull. U. S. Nat. Mus., 50, Part 4, p. 32, 1907—part, Boquete and Volcan de Chiriquí; Carriker, Ann. Carnegie Mus., 6, p. 745, 1910—El Général de Térraba and Boruca, Costa Rica (habits).

*Range*.—Mountains of extreme western Panama (Boquete, Volcan de Chiriquí) and southwestern Costa Rica.

1: Panama (Boquete, Chiriquí, 1).

**Catharus griseiceps griseiceps** Salvin. GRAY-HEADED NIGHTINGALE THRUSH.

*Catharus griseiceps* Salvin, Proc. Zool. Soc. Lond., 1866, p. 68—[Santa Fé], Veragua (type now in British Museum); idem, l.c., 1867, p. 132—Santa Fé, Veragua; idem, l.c., 1870, p. 179—Chitrá, Calovévora, and Calobre, Veragua; Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 6, pl. 1, fig. 2, 1879—part, Santa Fé, Chitrá, Calovévora, and Calobre, Veragua; Seebohm, Cat. Bds. Brit. Mus., 5, p. 287, 1881—Veragua; Ridgway, Bull. U. S. Nat. Mus., 50, Part 4, p. 32, 1907—part, Veragua.

*Range*.—Western Panama (Cerro Flores, eastern Chiriquí, and Cordillera of Veragua).<sup>1</sup>

**Catharus griseiceps phaeopleurus** Sclater and Salvin.<sup>2</sup> ANTIQUIAN GRAY-HEADED NIGHTINGALE THRUSH.

*Catharus phaeopleurus* Sclater and Salvin, Proc. Zool. Soc. Lond., 1875, p. 541—Medellin, Antioquia, Colombia (type now in British Museum); idem, l.c., 1879, p. 491—Medellin; Seebohm, Cat. Bds. Brit. Mus., 5, p. 287, 1881—Antioquia; Chapman, Bull. Amer. Mus. N. H., 36, p. 538, 1917—Peque, near Popayan, La Sierra, and Miraflores, Colombia.

*Range*.—Subtropical zone of the western and central Andes of Colombia.

**\*Catharus gracilirostris gracilirostris** Salvin. SLENDER-BILLED NIGHTINGALE THRUSH.

*Catharus gracilirostris* Salvin, Proc. Zool. Soc. Lond., "1864," p. 580, pub. Apr., 1865—Volcan de Cartago, Costa Rica (type now in British Museum); idem, l.c., 1866, p. 69—Volcan de Cartago, Costa Rica; Lawrence, Ann. Lyc. Nat. Hist. N. Y., 9, p. 90, 1868—"San Mateo," Costa Rica; Frantzius, Journ. Orn., 17, p. 289, 1869—Costa Rica; Boucard, Proc. Zool. Soc. Lond., 1878, p. 50—Volcan de Irazú, Costa Rica; Salvin and Godman, Biol.

<sup>1</sup> *Material examined*.—Panama: Cerro Flores, Chiriquí, 4.

<sup>2</sup> *Catharus griseiceps phaeopleurus* Sclater and Salvin: Similar to *C. g. griseiceps*, but back much duller, dark Saccardo's olive instead of olivaceous brown, this color passing gradually into the deep neutral gray of the pileum; edges to wing and tail feathers more olivaceous; gray of chest and sides slightly darker. Wing, 83–85, (female) 79–80; tail, 63–67; bill, 16–17.

*Material examined*.—Colombia: Peque, Antioquia, 1; Miraflores, east of Palmira, west slope of central Andes, 3; Popayan, 1; La Sierra, central Andes, Cauca, 2.

Centr.-Amer., Aves, 1, p. 6, pl. 1, fig. 1, 1879—Volcan de Cartago and "San Mateo," Costa Rica; Seebohm, Cat. Bds. Brit. Mus., 5, p. 292, 1881—Costa Rica; Zeledón, Anal. Mus. Nac. Costa Rica, 1, p. 104, 1887—Alturas de Talamanca; Ferry, Field Mus. Nat. Hist., Orn. Ser., 1, p. 271, 1910—Volcan de Turrialba and Coliblanco, Costa Rica.

*Catharus gracilirostris gracilirostris* Ridgway, Bull. U. S. Nat. Mus., 50, Part 4, p. 32, 1907—Costa Rica (Rancho Redondo, "San Mateo," Volcan de Póas, Volcan de Irazú, Volcan de Turrialba, and Rancho de Río Jiménez); Carriker, Ann. Carnegie Mus., 6, p. 744, 1910—Las Vueltas de Dota, Volcan de Irazú, Volcan de Turrialba, and Ujurrás de Térraba, Costa Rica (habits, nest, and eggs).

*Range*.—High mountains of Costa Rica (alt. 7,000–10,000 ft.).

17: Costa Rica (Volcan de Turrialba, 11; Volcan de Irazú, 2; Coliblanco, 4).

***Catharus gracilirostris accentor* Bangs.<sup>1</sup> CHIRIQUÍ NIGHTINGALE THRUSH.**

*Catharus gracilirostris accentor* Bangs, Proc. New Engl. Zool. Cl., 3, p. 50, 1902—Volcan de Chiriquí, Panama (type in coll. Bangs, now in Museum of Comparative Zoology, Cambridge, Mass.; cf. Bangs, Bull. Mus. Comp. Zool., 70, p. 332, 1930); Ridgway, Bull. U. S. Nat. Mus., 50, Part 4, p. 33, 1907—Panama (Boquete and Volcan de Chiriquí).

*Catharus gracilirostris bensoni* Griscom, Amer. Mus. Nov., 141, p. 7, Oct., 1927—Cerro Flores, eastern Chiriquí (type in the American Museum of Natural History, New York, examined).

*Range*.—High mountains of western Panama (Volcan de Chiriquí; Cerro Flores).

**Genus RIDGWAYIA Stejneger<sup>2</sup>**

*Ridgwayia* Stejneger, Proc. U. S. Nat. Mus., 5, p. 460, Feb., 1883—type, by orig. desig., *Turdus pinicola* Sclater.

**\**Ridgwayia pinicola* (Sclater). AZTEC THRUSH.**

*Turdus pinicola* Sclater, Proc. Zool. Soc. Lond., 27, p. 334, 1859—above Jalapa, Vera Cruz, Mexico (types now in British Museum); idem, l.c., p. 362, 1859—Jalapa; idem, l.c., 28, p. 250, 1860—Oaxaca, Vera Cruz; idem, Cat. Coll. Amer. Bds., p. 6, pl. 1, 1862—Jalapa; idem, Proc. Zool. Soc. Lond., 1864, p. 172—vicinity of Mexico City; Sumichrast, Mem. Bost. Soc. N.

<sup>1</sup> *Catharus gracilirostris accentor* Bangs: Identical in coloration with *C. g. gracilirostris*, but with larger, stouter bill.

This is not a very satisfactory form, since equally large-billed specimens occasionally occur in Costa Rica. *C. g. bensoni*, on direct comparison, proves to be inseparable from *accentor*. The type agrees in size of bill with Chiriquí examples, some of which also match it exactly in coloration.

*Material examined*.—Panama: Boquete, 9; Volcan de Chiriquí, 4; Cerro Flores, 2.

<sup>2</sup> A very distinct genus, somewhat intermediate between *Ixoreus* and *Sialia*.

H., 1, p. 543, 1869—Moyoapam, near Orizaba; Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 23, 1879—Jalapa, Orizaba, and Moyoapam (Vera Cruz), Valley of Mexico, and Oaxaca.

*Geocichla pinicola* Seebohm, Cat. Bds. Brit. Mus., 5, p. 179, 1881—southern Mexico; Sharpe, in Seebohm, Monog. Turd., 1, p. 95, pl. 29, 1898—Valley of Mexico (Tetelco, Xochimilco; Coapa and Hacienda Eslava, Tlalpam; Chimalpa, Tacupaya), Hidalgo (Real del Monte), Vera Cruz (Jalapa and Cofre de Perote), Oaxaca, Guerrero (Amula), and Jalisco (Sierra Nayarit and Sierra Bolaños).

*Ridgwayia pinicola* Stejneger, Proc. U. S. Nat. Mus., 5, p. 460, 1883 (crit.); Ridgway, l.c., 9, p. 131, 1886—Tezuitlan, Puebla (descr. female); Miller, Bull. Amer. Mus. N. H., 22, p. 183, 1906—Arroyo del Buey, Durango; Ridgway, Bull. U. S. Nat. Mus., 50, Part 4, p. 136, 1907—mountains of central Mexico, in states of Vera Cruz, Oaxaca, Puebla, Mexico, Hidalgo, Michoacan, Durango, and Chihuahua (monog.).

**Range.**—High mountains of Mexico, from southern Chihuahua (Sierra Madre, near Guadalupe Calvo) and northwestern Durango (Arroyo del Buey) through Nayarit, Jalisco, Michoacan, Hidalgo, Mexico, Puebla, and Guerrero south to Vera Cruz and Oaxaca.

1: Mexico (Real del Monte, Hidalgo, 1).

### Genus *SIALIA* Swainson

*Sialia* Swainson, Phil. Mag., (n.s.), 1, No. 5, p. 369, May, 1827—type, by monotypy, *Sialia azurea* "Swainson" = *Motacilla sialis* Linnaeus.

*Sialis* (not of Latreille, 1803) Lafresnaye, Rev. Zool., 2, p. 162, 1839—type, by monotypy, *Motacilla sialis* Linnaeus.

*Scyrornis* Gistel, Naturg. Tierr. für höh. Schulen, p. 8, 1848—new name for *Sialia* on grounds of purism.

### \**Sialia sialis sialis* (Linnaeus).<sup>1</sup> BLUEBIRD.

*Motacilla sialis* Linnaeus, Syst. Nat., 10th ed., 1, p. 187, 1758—based on "Bluebird" Catesby, Nat. Hist. Carolina, 1, p. 47, pl. 47, and "Blue Red-breast" Edwards, Nat. Hist. Bds., 1, pl. 24; type locality, South Carolina (ex Catesby).

*Sialia azurea* Swainson, Phil. Mag., (n.s.), 1, p. 369, 1827—new name for *Sylvia sialis* Wilson, Amer. Orn., 1, pl. 3, fig. 3.

*Sialia wilsonii* Swainson, Zool. Journ., 3, No. 10, p. 173, 1827—new name for *Sylvia sialis* Wilson, Amer. Orn., 1, p. 56, pl. 3, fig. 3.

*Sialia sialis bermudensis* Verrill, Osprey, 5, p. 84, 1901—Bermudas (location of type not stated).

<sup>1</sup> *Muscicapa aurea* Vieillot (Nouv. Dict. Hist. Nat., nouv. éd., 21, p. 463, 1818) and *Muscicapa azurea* Stephens (in Shaw, Gen. Zool., 13, (2), p. 116, 1826), both based on "L'Azurou" Levaillant (Hist. Nat. Ois. Afr., 4, p. 31, pl. 158), said to be from the Fish River in South Africa, have been quoted, on Sundevall's authority, as synonyms of the Bluebird. This reference seems to me extremely doubtful, judging from Levaillant's plate.

*Sialia sialis* Seebohm, Cat. Bds. Brit. Mus., 5, p. 329, 1881 (monog.); Bangs and Bradlee, Auk, 18, p. 254, 1901—Bermuda (crit.).

*Sialia sialis sialis* Ridgway, Bull. U. S. Nat. Mus., 50, Part 4, p. 142, 1907—part, excl. southern Florida (monog., full bibliog.).

**Range.**—Breeds from southern Manitoba, northern Ontario, southern Quebec, and Newfoundland south to Texas and the Gulf coast; casually west to base of Rocky Mountains in Montana, Wyoming, and Colorado; resident in Bermuda.<sup>1</sup> Winters south of the Ohio Valley and the central states; accidental in Cuba.

42: Maine (North Turner, 1; New Vineyard, 1); Massachusetts (Dedham, 3; Brookline, 1; Natick, 1; Cliftondale, 1; Sherborn, 1); Connecticut (East Hartford, 4); New York (Auburn, 1); Florida (Gainesville, 2); Ohio (Garrettsville, 1); Indiana (Davis Station, 1; Liverpool, 2; Whiting, 1); Illinois (Chicago, 4; Grand Chain, 3); Mississippi (Vicksburg, 1); Arkansas (Little Rock, 1); Texas (Ingram, 1; Kerrville, 1); Wisconsin (Beaver Dam, 8; Sheboygan, 1); Colorado (Fort Lyon, 1).

**\**Sialia sialis grata* Bangs.<sup>2</sup> FLORIDA BLUEBIRD.**

*Sialia sialis grata* Bangs, Auk, 15, p. 182, 1898—Miami, Florida (type in coll. Bangs, now in Museum of Comparative Zoology, Cambridge, Mass.; cf. idem, Bull. Mus. Comp. Zool., 70, p. 332, 1930).

*Sialia sialis sialis* Ridgway, Bull. U. S. Nat. Mus., 50, Part 4, p. 142, 1907—part, southern Florida.

**Range.**—Southern half of the peninsula of Florida.

14: Florida (Santam, 1; New River, 1; Palm Beach, 1; St. Lucie River, 1; West Jupiter, 10).

***Sialia sialis episcopus* Oberholser.<sup>3</sup> TAMAULIPAS BLUEBIRD.**

*Sialia sialis episcopus* Oberholser, Proc. Biol. Soc. Wash., 30, p. 27, 1917—Santa Engracia, Tamaulipas, Mexico (type in U. S. National Museum); Griscom and Crosby, Auk, 43, p. 33 (in text), 1926—Hidalgo and Brownsville, lower Rio Grande, Texas (crit.).

*Sialia sialis fulva* (not of Brewster) Phillips, Auk, 28, p. 80, 1911—Tamaulipas (Montelunga, Carricitos, Yerba Buena, Rampahuila, Galindo, Realito).

<sup>1</sup> According to Bangs and Bradlee (l.c.), the Bluebird of Bermuda is not separable from the continental form.

<sup>2</sup> *Sialia sialis grata* Bangs: Similar to *S. s. sialis*, but with larger bill and heavier feet; upper parts, on average, less purplish blue.

<sup>3</sup> *Sialia sialis episcopus* Oberholser: "Similar to *S. s. fulva*, but blue of upper parts rather darker, and anterior lower parts very much darker." (Oberholser, l.c.).

Oberholser refers specimens from southern Texas (Fort Clark and El Banco) to this form, whose distinctness is confirmed by Griscom and Crosby. According to Griscom (Bull. Amer. Mus. N. H., 64, p. 313, 1932), *S. s. episcopus* resembles *S. s. guatemalae* in coloration, but differs by slightly smaller size (wing of males, 98–102). We are not acquainted with it.

*Range*.—Northeastern Mexico, in the lowlands of northern Tamaulipas and extreme southeastern Texas (lower Rio Grande region).

**\**Sialia sialis fulva* Brewster. AZURE BLUEBIRD.**

[*Sialia sialis*] *fulva* Brewster, Auk, 2, p. 85 (in text), 1885—Santa Rita Mountains, Arizona (type now in Museum of Comparative Zoology, Cambridge, Mass.; cf. Bangs, Bull. Mus. Comp. Zool., 70, p. 332, 1930); Ridgway, Bull. U. S. Nat. Mus., 50, Part 4, p. 146, 1907—part, Arizona and northwestern Mexico (monog., bibliog.).

*Sialia azurea* (not of Swainson) Baird, Rev. Amer. Bds., 1, p. 62, 1864—part, Mirador, Mexico (crit.).

*Sialia sialis azurea* Brewster, Auk, 2, p. 85, 1885—Santa Rita Mountains, Arizona; Chapman, Bull. Amer. Mus. N. H., 10, p. 22, 1898—Jalapa, Vera Cruz; Miller, l.c., 21, p. 369, 1905—Juan Lisiarraga Mountains, Sinaloa; idem, l.c., 22, p. 183, 1906—Las Bocas, Matalotes, Cienaga de las Vegas, and Arroyo del Buey, Durango.

*Range*.—Transition zone of the mountains of southern Arizona south over the west Mexican tableland to Jalisco; in winter to Vera Cruz and Chiapas.

2: Mexico (Sabinas, Coahuila, 1; Tepic, Nayarit, 1).

**\**Sialia sialis guatemalae* Ridgway. GUATEMALA BLUEBIRD.**

[*Sialia*] *albiventris* "Sclater" Baird, Rep. Pac. R. R. Surv., 9, p. 922 (in text) 1858—Guatemala (nomen nudum).

*Sialia sialis guatemalae* Ridgway, Proc. U. S. Nat. Mus., 5, p. 13, 1882—Guatemala (type in U. S. National Museum); Nelson, Auk, 15, p. 161, 1898—highlands of Chiapas; Ridgway, Bull. U. S. Nat. Mus., 50, Part 4, p. 147, 1907 (monog., full bibliog.); Dearborn, Field Mus. Nat. Hist., Orn. Ser., 1, p. 138, 1907—Tecpam; Griscom, Bull. Amer. Mus. N. H., 64, p. 312, 1932—Guatemala (crit.).

*Sialia wilsoni* (not of Swainson) Sclater and Salvin, Ibis, 1859, p. 8—highlands of Guatemala (crit.).

*Sialia azurea* (not of Swainson) Baird, Rev. Amer. Birds, 1, p. 62, 1864—part, Tactic, Vera Paz, Guatemala; Seebohm, Cat. Bds. Brit. Mus., 5, p. 331, 1881—part, Guatemala.

*Range*.—Highlands of eastern and southeastern Mexico (from southern Tamaulipas and southern San Luis Potosi to Chiapas) and Guatemala.

5: Mexico (Mexico City, 1); Guatemala (Tecpam, 3; Santa Elena, 1).

**\**Sialia sialis meridionalis* Dickey and van Rossem.<sup>1</sup> SALVADOR BLUEBIRD.**

*Sialia sialis meridionalis* Dickey and van Rossem, Condor, 32, p. 69, 1930—Los Esesmites, Chalatenango, El Salvador (type in coll. of D. R. Dickey, Pasadena, California).

*Range*.—Highlands of El Salvador and Nicaragua; (?) Honduras. 2: Nicaragua (San Rafael del Norte, 2).<sup>2</sup>

***Sialia mexicana mexicana* Swainson. MEXICAN BLUEBIRD.**

*Sialia mexicana* Swainson, Fauna Bor.-Amer., 2, "1831," p. 202, pub. Feb., 1832—tableland of Mexico (type in "Mr. Taylor's collection"); Seebohm, Cat. Bds. Brit. Mus., 5, p. 331, 1881—Mexico (monog.).

*Sialia mexicana mexicana* Ridgway, Bull. U. S. Nat. Mus., 50, Part 4, p. 148, 1907 (monog., full bibliog.).

*Range*.—Northeastern portion of Mexican plateau, in states of Nuevo Leon, Coahuila, Tamaulipas, San Luis Potosi, and northern Vera Cruz.

***Sialia mexicana australis* Nelson. NELSON'S BLUEBIRD.**

*Sialia mexicana australis* Nelson, Proc. Biol. Soc. Wash., 16, p. 159, 1903—Mount Tanctaro, Michoacan (type in U. S. National Museum); Ridgway, Bull. U. S. Nat. Mus., 50, Part 4, p. 154, 1907 (monog., full bibliog.).

*Range*.—Southern portion of Mexican plateau, in states of Vera Cruz, Puebla, Mexico, Morelos, and Michoacan.

**\**Sialia mexicana anabelae* Anthony. SAN PEDRO BLUEBIRD.**

*Sialia mexicana anabelae* Anthony, Proc. Calif. Acad. Sci., (2), 2, p. 79, 1889—San Pedro Mártir Mountains, Lower California (type in collection of A. W. Anthony, now in Carnegie Museum, Pittsburgh; cf. Todd, Ann. Carnegie Mus., 18, p. 357, 1928); Ridgway, Bull. U. S. Nat. Mus., 50, Part 4, p. 150, 1907 (monog., full bibliog.); Grinnell, Univ. Calif. Pub. Zool., 32, p. 234, 1928—Lower California.

<sup>1</sup> *Sialia sialis meridionalis* Dickey and van Rossem: "Size, the smallest of all the races of *S. sialis*. Dorsal coloration of males identical with *Sialia sialis sialis* (Linnaeus), of the eastern United States; of the females brighter (but not lighter) blue, particularly on crown which is similar in color to the lower back; brown of under parts of both sexes decidedly paler, close to 'tawny' instead of 'cinnamon-rufous' or 'cinnamon-chestnut' in the males. Compared with the geographically adjacent *Sialia sialis guatemalae* Ridgway, the size is very much less and the coloration slightly darker throughout, particularly on the under parts.

"The measurements of the type, which, incidentally, are almost exactly the racial average, are, in millimeters: wing, 99; tail, 65." (Dickey and van Rossem, l.c.).

<sup>2</sup> These two specimens resemble in coloration four birds from Guatemala, while the dimensions are closer to those given by Dickey and van Rossem for their race; the male measuring 104 against 107–110, and the female, 99 against 104, on the wing. Direct comparison of an adequate series with topotypical material is imperative to ascertain their pertinence. Griscom (Bull. Amer. Mus. N. H., 64, p. 313, 1932) refers Nicaraguan birds to *S. s. meridionalis*.

*Range*.—Sierra San Pedro Mártir and Sierra Juárez of northern Lower California (chiefly Transition zone); in winter scattering somewhat to adjacent lowlands.

2: Lower California (San Pedro Mártir Mountains, 2).

**\**Sialia mexicana occidentalis* Townsend. WESTERN BLUEBIRD.**

*Sialia occidentalis* Townsend, Journ. Acad. Nat. Sci. Phila., 7, p. 188, 1837—Plains of Columbia River=Fort Vancouver, Washington (type in U. S. National Museum).

*Sialia caeruleocolis* Vigors, Zool. Voy. "Blossom," p. 18, pl. 3, 1839—no locality mentioned nor location of type stated.

*Sialia mexicana occidentalis* Ridgway, Bull. U. S. Nat. Mus., 50, Part 4, p. 155, 1907 (monog., full bibliog.); Grinnell, Pac. Coast Avifauna, 11, p. 172, 1915—California (crit.); Swarth and Brooks, Pac. Coast Avifauna, 17, p. 124, 1925—British Columbia; Grinnell, Univ. Calif. Pub. Zool., 32, p. 233, 1928—Lower California.

*Range*.—Transition zone from southern British Columbia east to northern Idaho and western Montana, and south to central-western California; winters south to San Diego County, California, and extreme northern Lower California.

33: Oregon (Tillamook, 2); California (Pacific Grove, 1; Monterey, 9; Nicasio, 3; Pinto Mountains, 3; Palo Alto, 2; Marin County, 2; Menlo Park, 2; Santa Cruz, 2; Los Gatos, 1; Claremont, 1; Clipper Gap, 1; Pasadena, 1; Lakeside, 1; Corona, 1; San José, 1).

**\**Sialia mexicana bairdi* Ridgway. CHESTNUT-BACKED BLUEBIRD.**

*Sialia mexicana bairdi* Ridgway, Auk, 11, p. 157, 1894—Camp 110, "New Mexico"—Cactus Pass, twenty miles east of Kingman, Mohave County, Arizona (type in U. S. National Museum); idem, Bull. U. S. Nat. Mus., 50, Part 4, p. 152, 1907 (monog., full bibliog.); Miller, Bull. Amer. Mus. N. H., 22, p. 183, 1906—Arroyo del Buey, Guanacevi, Durango; Oberholser, Sci. Pub. Cleveland Mus. N. H., 1, pp. 98, 117, 1930—Huachuca Mountains, Arizona, and Clouderoft and Mayfield, New Mexico; van Rossem, Trans. San Diego Soc. N. H., 6, p. 277, 1931—Nogales, Sonora.

*Range*.—Breeds mainly in the Transition zone from Utah, Colorado, and central-western Texas south to Durango and Zacatecas; winters from southern Utah and southern Colorado south to Sonora and Zacatecas; accidental in Iowa.

27: Arizona (Phoenix, 4; Huachuca Mountains, 2; Chiricahua Mountains, 1); New Mexico (Rincon, 1); Texas (El Paso, 4; Davis Mountains, 2); Mexico (Chihuahua, 13).

**\*Sialia currucoides (Bechstein). MOUNTAIN BLUEBIRD.**

*Motacilla s. Sylvia currucoides* "Borkh." Bechstein, in Latham, Allg. Ueb. Vogel, 3, (2), p. 546, pl. 121, 1798—"Virginien" (type in Darmstadt Museum).

*Erythaca (Sialia) arctica* Swainson, Fauna Bor.-Amer., 2, "1831," p. 209, pl. 39, pub. Feb., 1832—Fort Franklin, Mackenzie (location of type not stated).

*Sialia macroptera* Baird, in Stansbury's Rep. Great Salt Lake, p. 314, 1852—Salt Lake City, Utah (type in U. S. National Museum).

*Sialia arctica* Ridgway, Bull. U. S. Nat. Mus., 50, Part 4, p. 156, 1907 (monog., full bibliog.).

*Sialia currucoides* Grinnell, Univ. Calif. Pub. Zool., 32, p. 234, 1928—Lower California and Guadalupe Island; Oberholser, Sci. Pub. Cleveland Mus. N. H., 1, p. 117, 1930—Cloudcroft, New Mexico; van Rossem, Trans. San Diego Soc. N. H., 6, p. 278, 1931—Sonora.

**Range.**—Breeds in Canadian and locally in Upper Transition zone from southern Yukon, northwestern British Columbia, central Alberta, central Saskatchewan, and southwestern Manitoba south to mountains of southern California, Arizona, New Mexico, and Chihuahua, and from the Cascade Range and the Sierra Nevada to southwestern North Dakota and western Nebraska; winters from California and Colorado south to Guadalupe Island, Lower California, and Sonora, and east to Kansas, Oklahoma and Texas; casual at Great Slave Lake; accidental at Fort Franklin, Great Bear Lake.

39: British Columbia (Okanagan, 7); Colorado (Fort Lyon, 7; Hot Sulphur Springs, 2; Gore Range, 1); Texas (El Paso, 4; Kerrville, 3); New Mexico (Members, 3; Fort Union, 2; Fort Marcy, 1; Deming, 1; Silver City, 1); California (Palo Alto, 2; Monterey, 1; Chino, 1; Alto Loma, 1); Mexico (Chihuahua, 2).

**Genus OENANTHE Vieillot**

*Oenanthe* Vieillot, Analyse Nouv. Ornith. Elém., p. 43, 1816—type, by tautonymy, "Le Motteux" Buffon=*Motacilla oenanthe* Linnaeus.

**Oenanthe oenanthe oenanthe (Linnaeus). EUROPEAN WHEATEAR.**

*Motacilla oenanthe* Linnaeus, Syst. Nat., 10th ed., 1, p. 186, 1758—"in Europae apricis lapidosus"—Sweden.

*Saxicola oenanthe oenanthe* Ridgway, Bull. U. S. Nat. Mus., 50, Part 4, p. 9, 1907 (range, monog., full bibliog.).

**Range.**—Europe generally and northern Asia east to northern and east-central Alaska and south to the mouth of the Yukon and the Pribilof Islands.



**Oenanthe oenanthe leucorhoa** (Gmelin). GREENLAND  
WHEATEAR.

*Motacilla leucorhoa* Gmelin, Syst. Nat., 1, (2), p. 966, 1789—based on Buffon, "Le Motteux du Sénégal" and Daubenton, Pl. Enl., pl. 583, fig. 2, Senegal.

*Saxicola oenanthe leucorhoa* Ridgway, Bull. U. S. Nat. Mus., 50, Part 4, p. 12, 1907 (monog., full bibliog.).

*Oenanthe oenanthe leucorhoa* Salomonsen, Ibis, 1927, p. 205—western Greenland (crit.).

**Range.**—Arctic America, from Ellesmere Island and Boothia Peninsula east to Greenland<sup>1</sup> and south to northern Quebec. Winters in western Africa. Casual in migration or winter in Keewatin, Ontario, New Brunswick, Quebec, New York, Pennsylvania, Louisiana, Bermuda, and Cuba.

Genus **CYANOSYLVA** Brehm

*Cyano-sylvia* Brehm, Isis, 21, Heft 8 (August), col. 920, 1828—type, by monotypy, *Motacilla suecica* Linnaeus.

*Cyanecula* Brehm, Isis, 21, Heft 12 (December), col. 1280, 1828—type, by subs. desig. (Gray, List Gen. Bds., p. 21, 1840), *Motacilla suecica* Linnaeus.

**Cyanosylvia suecica robusta** (Buturlin). EAST SIBERIAN  
BLUE-THROAT.

*Cyanosylvia suecica robusta* Buturlin, Orn. Monatsber., 15, p. 79, 1907—mouth of the Kolyma River, northeastern Siberia (types in coll. of S. A. Buturlin).

*Cyanecula suecica* (not *Motacilla suecica* Linnaeus) Grinnell, Pac. Coast Avifauna, 1, p. 64, 1900—Cape Blossom, Alaska (breeding).

*Cyanosylvia suecica* Ridgway, Bull. U. S. Nat. Mus., 50, Part 4, p. 15, 1907 (monog., full bibliog.).

**Range.**—Eastern Siberia, from the Taimyr Peninsula east to Kamchatka and the Ockhotsk Sea; casual or local in western Alaska, breeding at Cape Blossom and Meade Point. On migration in the south of eastern Siberia, Manchuria, and Japan.<sup>2</sup>

Genus **CALLIOPE** Gould

*Calliope* Gould, Birds Europe, Part 16, pl. 118, March 1, 1836—type, by monotypy, *Calliope lathamii* Gould=*Motacilla calliope* Pallas.

<sup>1</sup> Birds from eastern Greenland, which are slightly smaller than those from the west coast, are referred by Salomonsen (Ibis, 1927, p. 203) to his new race *O. o. schiøleri*, from Iceland and the Faroe Islands. The material from eastern Greenland examined by this author being admittedly limited, the question needs further investigation.

<sup>2</sup> Although we have not seen any Alaskan material, there can be hardly any doubt that the blue-throats from that country pertain to *C. s. robusta*, which, according to Tugarinow (Ann. Mus. Zool. Acad. Sci. U.S.S.R., 29, "1928," p. 7, 1929), differs from typical *suecica* by darker coloration and slightly larger size. The range, as given above, has been compiled from Tugarinow's account.

**Calliope calliope camtschatkensis** (Gmelin). GREATER KAM-  
CHATKA NIGHTINGALE.

*Turdus camtschatkensis* Gmelin, Syst. Nat., 1, (2), p. 817, 1789—based on "Kamtschatka Thrush" Pennant, Arct. Zool., 2, p. 343, and Latham, Gen. Syn. Bds., 2, (1), p. 28; Camtschatka (type in Leverian Museum, probably lost).

*Calliope calliope* (not *Motacilla calliope* Pallas) Bent, Smiths. Misc. Coll., 56, No. 32, p. 22, 1912—Kiska Harbor, Kiska Island, Alaska.

**Range.**—Northeastern Asia. Casual on Kiska Island, Alaska (June 17, 1911).

Family ZELEDONIIDAE.<sup>1</sup> Wren-thrushes

## Genus ZELEDONIA Ridgway

*Zeledonia* Ridgway, Proc. U. S. Nat. Mus., 11, p. 537, Sept., 1889—type, by monotypy, *Zeledonia coronata* Ridgway.

**Zeledonia coronata** Ridgway. WREN-THRUSH.

*Zeledonia coronata* Ridgway, Proc. U. S. Nat. Mus., 11, p. 538, Sept., 1889—Volcan de Póas, Costa Rica (type in U. S. National Museum); Salvin and Godman, Biol. Centr.-Amer., Aves, 2, p. 248, 1892—Laguna, Volcan de Póas, Costa Rica; Bangs, Proc. New Engl. Zool. Cl., 3, p. 51, 1902—Boquete, Chiriquí; Pycraft, Ibis, 1905, pp. 1–24, pls. 1, 2 (anatomy, systematic position); Bangs, Proc. New Engl. Zool. Cl., 4, p. 28, 1908—Irazú, Costa Rica (crit.); Ridgway, Bull. U. S. Nat. Mus., 50, Part 4, p. 71, 1907—Costa Rica (Volcanoes de Póas and Irazú) and Chiriquí (monog.); Carriker, Ann. Carnegie Mus., 6, pp. 332, 742, 1910—Escazú, Volcan de Irazú, La Hondura, Ujurrás de Térraba, and Volcan de Turrialba, Costa Rica (habits).

*Zeledonia inasperata* (Cherrie MS.) Ridgway, Bull. U. S. Nat. Mus., 50, Part 4, p. 72, 1907—Volcan de Irazú (individual variation).

**Range.**—Mountains of Costa Rica (Escazú, Volcan de Irazú, La Hondura, Ujurrás de Térraba, Volcan de Póas, Volcan de Turrialba) and western Panama (Volcan de Chiriquí).<sup>2</sup>

## Family SYLVIIDAE. Warblers, Gnatcatchers, and Kinglets

## Subfamily SYLVIINAE. Warblers

## Genus ACANTHOPNEUSTE Blasius

*Acanthopneuste* J. H. Blasius, Naumannia, 8, Heft 4–6, p. 313, 1858—type, by subs. desig. (Salvadori, Orn. Pap., 2, p. 428, 1881), *Phyllopneuste borealis* Blasius.

<sup>1</sup> Cf. Ridgway, Bull. U. S. Nat. Mus., 50, Part 4, p. 885, 1907.

<sup>2</sup> *Material examined.*—Costa Rica: Volcan de Irazú, 10; Volcan de Turrialba, 2.—Panama: Boquete, Chiriquí, 1.

**Acanthopneuste borealis kennicotti** (Baird). KENNICOTT'S  
WILLOW WARBLER.

*Phyllopneuste kennicotti* Baird, Trans. Chicago Acad. Sci., 1, p. 313, pl. 30, fig. 2, 1869—St. Michael's in Norton Sound, Alaska (type in U. S. National Museum).

*Acanthopneuste borealis kennicotti* Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 696, 1904—western Alaska (monog., full bibliog.); Oberholser, Auk, 36, p. 407, 1919—Alaska (crit.).

*Range*.—Breeds in western Alaska (St. Michael, Nushagak, Alleknagik River, Kowak River, etc.), winters in southeastern Asia.

**Genus LOCUSTELLA** Kaup

*Locustella* Kaup, Skizz. Entw.-Gesch. Europ. Thierw., 1, p. 115, 1829—type, by tautonymy, *Sylvia locustella*=*Motacilla naevia* Boddaert.

**Locustella ochotensis** (Middendorff). MIDDENDORFF'S GRASS-  
HOPPER WARBLER.

*Sylvia* (*Locustella*) *ochotensis* Middendorff, Reise Sibir., 2, (2), p. 185, pl. 16, figs. 7, 8, 1853—mouth of Ouda River, Ochkotsk Sea (types in Leningrad Museum; cf. Pleske, Ornith. Ross., 2, p. 596, 1891).

*Locustella ochotensis* Swarth, Proc. Calif. Acad. Sci., (4), 17, p. 251, 1928—Nunivak Island, Alaska.

*Range*.—Northeastern Asia, from Kamchatka to the Kuriles and Bering Island, south to Korea. Wintering in the Moluccas. Accidental on Nunivak Island, Alaska.

**Subfamily POLIOPTILINAE. Gnatcatchers**

**Genus POLIOPTILA** Selater

*Culicivora* (not of Swainson, 1827) Swainson, Classif. Bds., 2, p. 243, 1837—type, by monotypy, *Culicivora atricapilla* Swainson=*Sylvia leucogastra* Wied.

*Polioptila* Selater, Proc. Zool. Soc. Lond., 23, p. 11, 1855—type, by subs. desig. (Baird, Rev. Amer. Bds., 1, p. 67, 1864), *Motacilla caerulea* Linnaeus.

**\*Polioptila caerulea caerulea** (Linnaeus). BLUE-GRAY  
GNATCATCHER.

*Motacilla caerulea* Linnaeus, Syst. Nat., 12th ed., 1, p. 337, 1766—based on *Motacilla parva caerulea* Edwards, Gleanings Nat. Hist., 2, p. 184, pl. 302; "Pennsylvania"—Philadelphia, Pa.

*Motacilla cana* Gmelin, Syst. Nat., 1, (2), p. 973, 1789—based on "Figuier cendré à gorge cendrée" Buffon, Hist. Nat. Ois., 5, p. 319, and "Grey-throated Warbler" Pennant, Arct. Zool., 2, p. 411; "Louisiana."

*Polioptila caerulea caesiogaster* Ridgway, Man. N. Am. Bds., p. 569, 1887—New Providence, Bahama Islands (type in U. S. National Museum); Hellmayr,

Tierreich, Lief. 18, p. 21, 1903—Bahama Islands; Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 723, 1904 (monog.); Riley, in Shattuck, The Bahama Islands, p. 365, 1905—Abaco and New Providence; Hellmayr, in Wytsman, Gen. Av., Part 17, p. 14, 1912—part, Bahamas.

*Poliottila caerulea caerulea* Hellmayr, Tierreich, Lief. 18, p. 20, 1903 (monog.); Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 716, 1904 (monog., full bibliog.); Todd and Worthington, Ann. Carnegie Mus., 7, pp. 427, 457, 1911—Bahamas (crit., habits); Phillips, Auk, 28, p. 80, 1911—Tamaulipas (crit.); Hellmayr, in Wytsman, Gen. Av., Part 17, p. 14, 1912 (range);<sup>1</sup> Bangs and Peters, Bull. Mus. Comp. Zool., 67, p. 482, 1927—Motzorongo, Vera Cruz.

*Range*.—Breeds in the Austral region of eastern United States and southern Canada, from New Jersey and southwestern Pennsylvania to southern Ontario, eastern Nebraska, south to the Gulf coast and Florida, and the Bahama Islands;<sup>1</sup> winters in Florida and the Gulf states south to the Bahamas, Cuba, eastern Mexico, and Guatemala.

116: Wisconsin (Beaver Dam, 14); Illinois (Chicago, 1; Grand Chain, 5; Joliet, 2; Olive Branch, 3; Lake Forest, 2); Louisiana (Orleans County, 1); Texas (Ingram, 2; Corpus Christi, 12); Florida (Wilson, 2; Nassau County, 2; Key West, 3; Town Point, 5; Mary Esther, 3; East Paso, 2; West Jupiter, 7); Bahamas (Inagua, 16; Andros, 2; Abaco, 7; Aucklin, 1; Biminis, 1; New Providence, 8; Maraguana, 4; Caicos, 5); Cuba (San Diego de los Baños, 1); Little Cayman, 1; Tamaulipas (Tampico, 1); Vera Cruz (Misantla, 1); Guerrero (Iguala, 2).

**\**Poliottila caerulea amoenissima* Grinnell.<sup>2</sup> WESTERN BLUE-GRAY GNATCATCHER.**

*Poliottila caerulea amoenissima* Grinnell, Proc. Calif. Acad. Sci., (4), 15, p. 494, 1926—Pleasant Valley, Mariposa County, California (type in Museum of Vertebrate Zoology, Berkeley); McLellan, l.c., (4), 16, p. 38, 1927—San Blas, Nayarit; Grinnell, Univ. Calif. Pub. Zool., 32, p. 227, 1928—northern Lower California; van Rossem, Trans. San Diego Soc. N. H., 6, p. 278, 1931—Sonora.

*Poliottila caerulea obscura* Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 720, 1904—part, range (except Cape San Lucas region, Lower California) (full bibliog.); Hellmayr, in Wytsman, Gen. Av., Part 17, p. 14, 1912—part, range (except Cape San Lucas region, Lower California); Townsend, Bull. Amer. Mus. N. H., 48, p. 25, 1923—part, Concepción Bay, Lower California.

<sup>1</sup> Specimens from the Bahamas (*P. c. caesiogaster*) do not appear to be separable.

<sup>2</sup> *Poliottila caerulea amoenissima* Grinnell: "Similar to *P. c. obscura*, of the Cape San Lucas region, but wing and tail (especially the tail) longer, bill slightly slenderer, and median lower surface less clearly white, more imbued with very pale gray." (Grinnell, l.c.).

*Range*.—Resident in southwestern United States and northern Mexico, from western Texas to California, north to Colorado, southern Utah, southern Nevada, and interior of northern California, south to Lower California (excluding Cape San Lucas region), Chihuahua, Sonora, Sinaloa, and Colima.

15: California (Alhambra, 1; San Dimas, 1; Nevada City, 1; Placer County, 1; Pomona, 1; Piute Mountains, Kern County, 1; Kern County, 2; Drytown, 1); Arizona (Fort Mojave, 2; Huachuca Mountains, 3); New Mexico (Members, 1).

***Polioptila caerulea obscura* Ridgway. SAN LUCAS BLUE-GRAY GNATCATCHER.**

*Polioptila caerulea obscura* Ridgway, Proc. U. S. Nat. Mus., 5, p. 535 (foot-note), 1883—San José del Cabo, Lower California (type in U. S. National Museum); idem, Bull. U. S. Nat. Mus., 50, Part 3, p. 720, 1904—part, Lower California (full bibliog.); Hellmayr, in Wytsman, Gen. Av., Part 17, p. 14, 1911—part, Lower California; Townsend, Bull. Amer. Mus. N. H., 48, p. 25, 1923—part, La Paz, Cerralbo Island, Miraflores, Agua Verde Bay; Grinnell, Proc. Calif. Acad. Sci., (4), 15, p. 493, 1926—Lower California (crit.); idem, Univ. Calif. Pub. Zool., 32, p. 227, 1928—Cape San Lucas region, Lower California (monog.).

*Range*.—Cape San Lucas region of Lower California.

**\**Polioptila caerulea mexicana* (Bonaparte).<sup>1</sup> MEXICAN GNATCATCHER.**

*Culicivora mexicana* Bonaparte, Consp. Gen. Av., 1, p. 316, 1850—Mexico (type from Oaxaca in Berlin Museum examined); Sclater, Proc. Zool. Soc. Lond., 23, p. 12, 1855 (note on type).

*Polioptila caerulea mexicana* Nelson, Auk, 15, p. 160, 1898—lowlands of Vera Cruz to Chiapas (crit.); Hellmayr, Nov. Zool., 7, p. 535 (in text), 1900—Oaxaca and Cocoyac (note on types in Berlin Museum); Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 722, 1904—southeastern Mexico (monog., full bibliog.); Dearborn, Field Mus. Nat. Hist., Orn. Ser., 1, p. 135, 1907—Los Amates and San José, Guatemala; Hellmayr, in Wytsman, Gen. Av., 17, p. 14, 1911—southeastern Mexico; Griscom, Bull. Amer. Mus. N. H., 64, p. 287, 1932—Guatemala (crit.).

*Range*.—Southeastern Mexico, from extreme southern San Luis Potosi (Valles) south through Vera Cruz to Oaxaca, Chiapas, Campeche, and Yucatan, and Guatemala (San José, Escuintla; Los Amates, Izabal; etc.).

5: Mexico (Yucatan, 3); Guatemala (San José, 1; Los Amates, 1).

<sup>1</sup> *Polioptila caerulea mexicana* (Bonaparte) is similar in coloration to *P. c. caerulea*, but on average smaller. Rather an unsatisfactory race.

**\**Polioptila caerulea cozumelae* Griscom.<sup>1</sup> COZUMEL  
GNATCATCHER.**

*Polioptila caerulea cozumelae* Griscom, Amer. Mus. Nov., 236, p. 10, 1926—Cozumel Island, Yucatan (type in the American Museum of Natural History, New York).

*Polioptila caerulea* (not *Motacilla caerulea* Linnaeus) Ridgway, Proc. U. S. Nat. Mus., 8, p. 561, 1885—Cozumel Island.

*Polioptila caesiogaster* (not of Ridgway) Salvin, Ibis, 1888, p. 245—Cozumel Island (crit.).

*Polioptila caerulea caesiogaster* Hellmayr, in Wytsman, Gen. Av., Part 17, p. 14, 1911—part, Cozumel Island.

*Range*.—Resident on Cozumel Island, Yucatan.

2: Cozumel Island, 2.

***Polioptila caerulea nelsoni* Ridgway.<sup>2</sup> NELSON'S GNATCATCHER.**

*Polioptila nelsoni* Ridgway, Proc. Biol. Soc. Wash., 16, p. 109, 1903—Oaxaca City, Oaxaca (type in U. S. National Museum); idem, Bull. U. S. Nat. Mus., 50, Part 3, p. 724, 1904—Oaxaca and Chiapas (monog.); Hellmayr, in Wytsman, Gen. Av., Part 17, p. 14, 1911—Oaxaca and Chiapas.

*Polioptila caerulea nelsoni* Griscom, Bull. Amer. Mus. N. H., 64, p. 287, 1932—Chanquejelve, Guatemala (crit.).

*Range*.—Southern Mexico, in states of Chiapas and Oaxaca, and northwestern Guatemala (Chanquejelve).

**\**Polioptila dumicola dumicola* (Vieillot). BRUSH-LOVING  
GNATCATCHER.**

*Sylvia dumicola* Vieillot, Nouv. Dict. Hist. Nat., nouv. éd., 11, p. 170, 1817—based on "Contramaestre azuladillo" Azara, No. 158, Paraguay.

*Culicivora boliviana* Sclater, Proc. Zool. Soc. Lond., 20, "1852," p. 34, pl. 47, pub. Dec., 1853—part (type from "Bolivia" [locality not specified] collected by T. Bridges in coll. of P. L. Sclater, now in British Museum, examined).

*Culicivora bivittata* (not *Sylvia bivittata* Lichtenstein) Lafresnaye and d'Orbigny, Syn. Av., 1, in Mag. Zool., 7, cl. 2, p. 56, 1837—part, Corrientes and Buenos Aires.

<sup>1</sup> *Polioptila caerulea cozumelae* Griscom: Differs from all known races of this species by its darker coloration; back uniform slate gray (instead of pale gray blue); breast and sides "gull-gray" becoming lighter on the belly and white on under tail coverts; also decidedly smaller than *P. c. caerulea*, about the same size as extremely small examples of *P. c. mexicana*. It is not unlike *P. c. nelsoni*, but smaller, darker beneath, and lacks the bluish black forehead.

<sup>2</sup> *Polioptila caerulea nelsoni* Ridgway: "Similar to *P. c. mexicana*, but adult male with forehead and crown (within the U-shaped black mark) blackish slate, distinctly glossed with greenish blue; adult female similar to that of '*P. c. caesiogaster*,' but upper parts duller slate gray and under parts white medially." (Ridgway, l.c.).

The status of this species is highly questionable. The two specimens referred by Ridgway to this species should be carefully reexamined. Griscom (l.c.) considers it the most southerly race of the Blue-gray Gnatcatcher, and in the absence of material we have adopted his conclusion.

*Culicivora dumicola* d'Orbigny, Voy. Amér. Mérid., Ois., p. 331, 1840—part, Corrientes and Buenos Aires; Burmeister, Journ. Orn., 8, p. 252, 1860—Banda Oriental and Paraná; idem, Reise La Plata St., 2, p. 473, 1861—Montevideo and Paraná (eggs descr.).

*Poliophtila dumicola* Sclater, Proc. Zool. Soc. Lond., 23, p. 12, 1855—part, Paraguay, Corrientes, Buenos Aires; idem, Cat. Coll. Amer. Bds., p. 12, 1862—Bolivia and Rio de La Plata; Baird, Rev. Amer. Bds., 1, p. 73, 1864—part, Buenos Aires and Paraguay; Sclater and Salvin, Proc. Zool. Soc. Lond., 1868, p. 139—Conchitas, Prov. Buenos Aires; Durnford, Ibis, 1876, p. 157—San Isidro, Prov. Buenos Aires; Sclater and Salvin, Proc. Zool. Soc. Lond., 1879, p. 592—Bolivia (part, type of *C. boliviana*); Salvin, Ibis, 1880, p. 352—Tucumán; White, Proc. Zool. Soc. Lond., 1882, p. 593—Monte Grande, Buenos Aires; Barrows, Bull. Nutt. Orn. Cl., 8, p. 86, 1883—Concepción, Entre Rios; Sharpe, Cat. Bds. Brit. Mus., 10, p. 444, 1885—part, Uruguay, Argentina (Punta Lara, Paraná, Monte Grande, Cosquin), and Bolivia (type of *C. boliviana*); Sclater and Hudson, Arg. Orn., 1, p. 12, 1888—Argentina (habits); Stempelmann and Schulz, Bol. Acad. Nac. Ci. Cordoba, 10, p. 398, 1890—Cordoba; Frenzel, Journ. Orn., 39, p. 118, 1891—Cordoba; Allen, Bull. Amer. Mus. N. H., 3, p. 342, 1891—Corumbá, southwestern Matto Grosso; Holland, Ibis, 1890, p. 425; 1891, p. 16; 1892, p. 194—Estancia Espartillar, Prov. Buenos Aires; Kerr, Ibis, 1892, p. 123—Fortín Page, lower Pilcomayo; Aplin, Ibis, 1894, p. 163—Uruguay; Salvadori, Boll. Mus. Zool. Torino, 10, No. 208, p. 95, 1895—Santa Rosa, Salta; idem, l.c., 12, No. 292, p. 4, 1897—Campo Santo, Salta, and Caiza, Bolivian Chaco; Ihering, Rev. Mus. Paul., 3, p. 130, 1899—São Lourenço, Rio Grande do Sul, Brazil; idem, Anuario Est. Rio Grande do Sul, 16, p. 116, 1899—same locality; Kerr, Ibis, 1901, p. 222—Paraguayan Chaco; Lillo, Anal. Mus. Nac. Hist. Nat. Buenos Aires, 8, p. 172, 1902—Tucumán; Hellmayr, Verh. Zool. Bot. Ges. Wien, 53, p. 226, 1903—Caiza, Bolivia, and Campo Santo and Santa Rosa, Salta (crit., juv.); idem, Tierreich, Part 18, p. 21, 1903 (monog.); Baer, Ornith., 12, p. 214, 1904—Santa Ana, Tucumán; Bruch, Rev. Mus. La Plata, 11, p. 256, 1904—Salta; Lillo, Rev. Letr. Cienc. Soc., 3, p. 39, 1905—Tucumán; Ihering, Cat. Faun. Braz., 1, p. 329, 1907 (range); Hartert and Venturi, Nov. Zool., 16, p. 163, pl. 2, fig. 7 (egg), 1909—Barracas al Sud, Lagunas de Malvinas (Tucumán), Cordoba, La Soledad (Entre Rios), Samaipata (Bolivia), and Paraguay (nest descr.); Dabbene, Anal. Mus. Nac. Hist. Nat. Buenos Aires, 18, p. 364, 1910 (range in Argentina); Grant, Ibis, 1911, p. 84—Paraguay (Villa Franca and Cabo Emma) and Los Ynglases, Ajó, Buenos Aires; Bertoni, Faun. Parag., p. 60, 1914—Asunción and Chaco; Hussey, Auk, 33, p. 396, 1916—Las Talas, La Plata; Gibson, Ibis, 1918, p. 377—Cape San Antonio, Buenos Aires (breeding habits); Marelli, El Hornero, 1, p. 79, 1918—Curuzú Cuatí, Corrientes; Dabbene, l.c., 1, p. 240, 1919—Isla Martín García, Buenos Aires; Tremoleras, l.c., 2, p. 22, 1920—Canelones and Montevideo, Uruguay; Dinelli, l.c., 2, p. 313, 1922—Tucumán (habits, nest, and eggs); Serié and Smyth, l.c., 3, p. 62, 1923—Santa Elena, Entre Rios (breeding); Giacomelli, l.c., 3, p. 67, 1923—La Rioja; Pereyra, l.c., 3, p. 170, 1923—Zelaya and San Isidro, Buenos Aires; Renard, l.c., 3, p. 287, 1924—

San Cristóbal, Santa Fé; Marelli, Mem. Min. Obr. Públ. Buenos Aires, for 1922-23, p. 654, 1924—Prov. Buenos Aires; Wilson, El Hornero, 3, p. 360, 1926—General López, Santa Fé; Wetmore, Bull. U. S. Nat. Mus., 133, p. 359, 1926—Chaco (Resistencia, Las Palmas), Formosa (Riachó Pilago, Formosa), Paraguay (west of Puerto Pinasco), Buenos Aires (Lavalle), Uruguay (San Vicente, Lazcano, Rio Negro), and Tapia, Tucumán (habits); Friedmann, Bull. Mus. Comp. Zool., 68, p. 214, 1927—Santa Fé (Bovril Island), Entre Rios (Santa Elena), and Tucumán (nest and eggs descr.); Smyth, El Hornero, 4, p. 143, 1928 (eggs, descr.).

*Polioptila dumicola dumicola* Hellmayr, in Wytzman, Gen. Av., Part 17, p. 15, 1911 (range); idem, Nov. Zool., 32, p. 189, 1925—Corrientes (crit.); Laubmann, Wissens. Erg. Deuts. Gran Chaco Exp., Vogel, p. 312, 1930—Formosa (San José, Lapango, Yuncá Viejo) and Bolivia (Fortín Esteros and Villa Montes, Tarija, and La Creencia, Santa Cruz); Naumburg, Bull. Amer. Mus. N. H., 60, p. 320, 1930—Paraguay (Fort Wheeler, Puerto Pinasco) and Matto Grosso (Urucúm and Belvedere de Urucúm).

**Range.**—Uruguay; Paraguay; northern Argentina, south to La Rioja, Córdoba, Santa Fé, and Buenos Aires; southern and central Bolivia, east to Santa Cruz de la Sierra; and extreme southern Brazil, in State of Rio Grande do Sul and in the southwestern section of Matto Grosso (Corumbá, Urucúm).<sup>1</sup>

23: Uruguay (Polanco, Dept. Minas, 2; Arazatí, on coast south of Ecilda, Dept. San José, 3; Estancia El Corte, 15 km. north of San Carlos, 2; Rio Uruguay, southwest of Dolores, Dept. Soriano, 5); Argentina (Noetinger, Prov. Córdoba, 2; Concepción, Tucumán, 4); Brazil (Urucúm de Corumbá, Matto Grosso, 5).

**\**Polioptila dumicola berlepschi* Hellmayr.<sup>2</sup> BERLEPSCH'S GNATCATCHER.**

<sup>1</sup> Recent comparison of a small series of topotypical Paraguayan birds with adequate material from Argentina failed to disclose any constant differences. Birds from Rio Grande do Sul and southwestern Matto Grosso (Corumbá and Urucúm) are not separable either. The type of *C. boliviana*, from an unspecified locality in Bolivia, and a male from Santa Cruz de la Sierra are somewhat paler both above and below, but this does not necessarily signify intergradation to *P. d. berlepschi*, as similar examples occasionally occur in Argentina (Est. Espartillar, Prov. Buenos Aires) and Paraguay (Fort Wheeler). Birds from the highlands of Bolivia (Samaipata, Mizque, Valle Grande, Parotani) are somewhat deeper bluish above and darker beneath with the whitish abdominal area much reduced, and have on average longer tails. With a more ample series they might prove to be separable.

**Additional material examined.**—Argentina: Prov. Buenos Aires, 10; Cosquín, Córdoba, 3; Santa Ana, Tucumán, 2; Salta (Campo Santo, Santa Rosa), 2; Corrientes, 1.—Brazil: São Lourenço, Rio Grande do Sul, 2; Corumbá, Matto Grosso, 1.—Paraguay: Fort Wheeler, Chaco, 2; Puerto Pinasco, 2; Villa Concepción, 1.—Bolivia: Caiza, Prov. Tarija, 2; Santa Cruz de la Sierra, 1; Samaipata, 5; Parotani, Prov. Cochabamba, 1; Mizque, Prov. Cochabamba, 1; Valle Grande, 1.

<sup>2</sup> *Polioptila dumicola berlepschi* Hellmayr: Similar to *P. d. dumicola*, but with longer bill and coloration very much paler; upper parts light ashy gray instead of bluish plumbeous; black frontal band much narrower, hardly more than 1½ to 2 mm. wide; the black stripe on the sides of the head much more restricted, the white occupying the lower half of the auriculars and reaching very nearly up



*Poliophtila berlepschi* Hellmayr, Nov. Zool., 8, p. 356, 1901—Rio das Pedras and Rio Paraná, São Paulo; Goyaz and Leopoldina, Rio Araguay, Goyaz; Caxoeirinha, Cuyabá, Chapada, and Engenho do Cap Gama, Matto Grosso (type from Cuyabá, Matto Grosso, in Vienna Museum); idem, Tierreich, Part 18, p. 22, 1903 (monog.); Ihering, Cat. Faun. Braz., 1, p. 328, 1907—Itapura, Rio Tiété, São Paulo, and Porto da Faya, Matto Grosso; Ménégau, Rev. Franç. d'Orn., 5, p. 84, 1917—Caceres, Matto Grosso.

*Poliophtila dumicola berlepschi* Hellmayr, in Wytsman, Gen. Av., Part 17, p. 15, 1911—interior of Brazil and eastern Bolivia (crit.); idem, Nov. Zool., 32, p. 189, 1925—Chiquitos, Bolivia (crit.); idem, Field Mus. Nat. Hist., Zool. Ser., 12, p. 257, 1929—Philadelphia, Goyaz (crit.); Naumburg, Bull. Amer. Mus. N. H., 60, p. 320, 1930—Rio São Lourenço and Tapirapoan, Matto Grosso.

*Culicivora bivittata* (not *Sylvia bivittata* Lichtenstein) Lafresnaye and d'Orbigny, Syn. Av., 1, in Mag. Zool., 7, cl. 2, p. 56, 1837—part, Chiquitos and Moxos, Bolivia (spec. in Paris Museum examined).

*Culicivora dumicola* (not *Sylvia dumicola* Vieillot) d'Orbigny, Voy. Amér. Mérid., Ois., p. 331, 1840—part, Chiquitos and Moxos, Bolivia.

*Poliophtila dumicola* Sclater, Proc. Zool. Soc. Lond., 23, p. 12, 1855—part, Chiquitos and Moxos; Baird, Rev. Amer. Bds., 1, p. 73, 1864—part, Bolivia; Pelzeln, Orn. Bras., 1, p. 70, 1868—São Paulo (Rio das Pedras, Rio Paraná), Goyaz, and Matto Grosso (Cuyabá, Engenho do Cap Gama); Sclater and Salvin, Proc. Zool. Soc. Lond., 1879, p. 592—part, Chiquitos and Moxos; Sharpe, Cat. Bds. Brit. Mus., 10, p. 444, 1885—part, spec. n. o, Bolivia, coll. T. Bridges (spec. in British Museum examined).

*Culicivora boliviana* (not of Sclater) Sclater, Proc. Zool. Soc. Lond., 20, "1852," p. 34, pub. Dec., 1853—part, d'Orbigny's specimens from eastern Bolivia (Chiquitos, Moxos).

*Poliophtila boliviana* Leverkühn, Journ. Orn., 37, p. 109, 1889—Cuyabá and Caxoeirinha, Matto Grosso (crit.); Hartert, Kat. Vogels. Senckenb. Naturf. Ges., p. 97, 1890—"Paraguay" (errore);<sup>1</sup> Allen, Bull. Amer.

to the lower eyelid; lower surface pure white, at best faintly shaded with pale grayish across chest and along sides; axillaries and under wing coverts white instead of pale gray; female with prominent white superciliary streak and pure white instead of grayish cheeks and auriculars.

Birds from western Matto Grosso (Engenho do Cap Gama, Rio Guaporé) and eastern Bolivia (Chiquitos) have the chest and sides distinctly shaded with grayish, whereas in specimens from more eastern localities the whole ventral surface is pure white.

*Material examined.*—Brazil, Goyaz: Philadelphia, 2; Leopoldina, 1; Goyaz City, 1.—São Paulo: Rio das Pedras, 1; Rio Paraná, 5; Itapura, Rio Tiété, 2.—Minas Geraes: Agua Suja, near Bagagem, 3.—Matto Grosso: Cuyabá, 4; São Lourenço River, 2; Tapirapoan, 2; Engenho do Cap Gama, 1.—Bolivia: Chiquitos, 4; unspecified, 2.

<sup>1</sup> This specimen, an adult male which we have examined in the collection of the Frankfort Museum, is indeed referable to *P. d. berlepschi*, as we have pointed out elsewhere (Nov. Zool., 8, p. 357, 1901). The locality "Paraguay," given on the authority of a dealer, is, however, entirely untrustworthy, inasmuch as other gnatcatchers of this group recently obtained in that country pertain to the dark-colored *P. d. dumicola*. The inclusion of *P. d. berlepschi* in the Paraguayan fauna (cf. Bertoni, Faun. Parag., p. 60, 1914) is, therefore, unjustified.

Mus. N. H., 3, p. 342, 1891—Chapada, Abrilongo, and Cachoeira, Matto Grosso; Hellmayr, Nov. Zool., 7, p. 536, 1900—Cuyabá, Matto Grosso.

*Polioptila leucogastra* (not *Sylvia leucogastra* Wied) Pelzein, Orn. Bras., 1, p. 70, 1868—part, Rio das Pedras, São Paulo.

**Range.**—Tableland of Brazil, in states of Goyaz (Philadelphia, Rio Tocantins; Leopoldina, Rio Araguay; Goyaz City), Minas Geraes (Agua Suja, near Bagagem), northern São Paulo (Rio Paraná, Rio das Pedras, Itapura), and Matto Grosso (excepting extreme southwestern section), and eastern Bolivia (Chiquitos).

2: Brazil (Philadelphia, Rio Tocantins, Goyaz, 2).

***Polioptila schistaceigula* Hartert.<sup>1</sup> SLATE-THROATED GNATCATCHER.**

*Polioptila schistaceigula* Hartert, Bull. Brit. Orn. Cl., 7, p. XXX, 1898—Cachaví, Prov. Esmeraldas, Ecuador (type in Tring Museum examined); idem, Nov. Zool., 5, p. 479, 1898—Cachaví; Hellmayr, Tierreich, Part 18, p. 28, 1903—Cachaví, Ecuador; idem, in Wytzman, Gen. Av., Part 17, p. 17, pl., fig. 3, 1911—Ecuador (Cachaví) and Isthmus of Darien; Chapman, Bull. Amer. Mus. N. H., 36, p. 507, 1917—San José, Rio Dagua, and Puerto Valdivia, lower Cauca, Colombia; idem, l.c., 55, p. 560, 1926—Ecuador (Cachaví).

**Range.**—Tropical zone of the Pacific coast from eastern Panama (Darien) to northwestern Ecuador (Cachaví, Prov. Esmeraldas), extending east into Antioquia (Puerto Valdivia, lower Cauca).

***Polioptila guianensis* Todd.<sup>2</sup> GUIANAN GNATCATCHER.**

*Polioptila guianensis* Todd, Proc. Biol. Soc. Wash., 33, p. 72, Dec., 1920—Tamanoir, Mana River, French Guiana (type in Carnegie Museum examined).

<sup>1</sup> *Polioptila schistaceigula* Hartert: Upper parts blackish plumbeous; remiges dull black, hardly paler exteriorly; tail black, the outermost rectrix with a narrow apical fringe of white; sides of the head somewhat lighter plumbeous than the crown; narrow rim round the eye and narrow supraloral streak white; throat and foreneck deep slate gray, chin and upper throat variegated with white; remainder of under parts, including axillaries and under wing coverts, silky white; base of inner web of remiges margined with dull whitish. Wing ("male," type), 48; tail, 44; bill, 11.

An unsexed adult from Darien, collected by C. Viguiet (the discoverer of *Dacnis viguieri*), in the Paris Museum differs from the type by lacking the white supraloral streak and by having the throat less spotted with white. Wing, 47; tail, 41; bill, 12.

**Material examined.**—Ecuador: Cachaví, 1 (the type).—Panama: Isthmus of Darien, 1.

<sup>2</sup> *Polioptila guianensis* Todd: Upper parts blackish plumbeous; primary coverts and remiges narrowly edged with plumbeous exteriorly; tail black, the two lateral pairs of rectrices wholly white, the next pair either entirely white or with a black margin (variable in width and extent) on the basal half of the inner web; lores plumbeous; narrow orbital ring white; cheeks and auriculars blackish plumbeous like the crown; chin and upper throat white; lower throat and breast

**Range.**—Tropical zone of French and British Guiana (Potaro Landing), southern Venezuela (Rio Pescado, Mount Duida; Solano, Rio Cassiquiare), and adjacent parts of extreme northern Brazil (foot of Cerro Curucuryari, Rio Negro).

**\**Poliophtila major* Hellmayr.<sup>1</sup> GREATER GNATCATCHER.**

*Poliophtila nigriceps major* Hellmayr, Nov. Zool., 7, p. 538, Dec., 1900—"Sueccha" [=Sueccha], Huamachuco (alt. 9,000 ft.), Peru (type in Tring Museum;=adult male); idem, l.c., 8, p. 358, 1901—"Cojabamba" [=Cajabamba] (alt. 9,000 ft.), Peru (crit.); idem, Tierreich, Part 18, p. 26, 1903—Andes of Peru (descr. of male).

*Poliophtila livida major* Hellmayr, Nov. Zool., 14, p. 5, 1907—Andes of northern Peru; idem, in Wytzman, Gen. Av., Part 17, p. 17, 1911—Andes of northern Peru (Sueccha, Cajabamba, Araquedra, Callacate).

*Poliophtila anteocularis maior* Bangs and Noble, Auk, 35, p. 456, 1918—Huanabamba, Dept. Piura, Peru.

*Poliophtila bilineata andina* Hellmayr, Verh. Zool. Bot. Ges. Wien, 53, p. 224, 1903—Cajabamba, Peru (type in Berlepsch Collection, now in Senckenberg Museum, Frankfurt; =adult female); idem, in Wytzman, Gen. Av., Part 17, p. 16, 1911—Cajabamba, Peru.

dark gray (between dark gull gray and slate gray), becoming paler on the flanks; abdomen and under tail coverts pure white. Females are paler plumbeous above, have the throat almost entirely white, the breast markedly paler (pale gull gray), and are, furthermore, distinguished by possessing a distinct white superciliary stripe, though this feature is suggested in some males by a slight grayish white supraloral streak. Wing, (male) 47–51, (female) 41–47; tail, 45–47; bill, 9–10.

This species is nearly related to, and may eventually turn out to be conspecific with, *P. schistaceigula*, from which it chiefly differs by the white lateral tail feathers and paler anterior under parts. It is apparently widely distributed in the Guianas and adjacent districts of Venezuela and Brazil, as shown by a number of specimens which we have recently seen in the collections of the American Museum of Natural History, New York.

**Material examined.**—French Guiana: Tamanoir, Mana River, 3; Pied Saut, Oyapock, 4 (all in the Carnegie Museum).—British Guiana: Potaro Landing, 1 (adult female, Aug. 17, 1913. Leo E. Miller and F. X. Iglseider).—Venezuela: Rio Pescado, Mount Duida (alt. 330 ft.), 1 (male, Nov. 21, 1928. Tyler Duida Expedition); Solano, Rio Cassiquiare, 1 (adult male, May 5, 1929. Olalla).—Brazil: foot of Cerro Curucuryari (alt. 500 ft.), Rio Negro, 1 (adult female, Aug. 18, 1929. Olalla).

<sup>1</sup> *Poliophtila major* Hellmayr differs from the *P. plumbea* group in both sexes having the upper part of the head glossy black. In the adult male the circumocular and temporal regions are black like the crown, there being only a few white feathers in the lores, whereas the female has the sides of the head (except a black streak along the upper margin of the auriculars) and a broad superciliary stripe white as in *P. p. bilineata*. The back is of a much darker slate gray than in the races of *P. plumbea*, and the dimensions are decidedly larger. Wing, (male) 52–55, (female) 50–53; tail, 52–57, (female) 50–54; bill, 12–13.

Study of an excellent series of properly sexed specimens kindly loaned by the authorities of the American Museum of Natural History and reexamination of the original examples of both "forms" show conclusively that *P. n. major* and *P. b. andina* are male and female of the same thing. Of seven adult birds collected by O. T. Baron at Cajabamba in January, 1895, four without superciliaries are sexed as "male," three with white superciliaries as "female"; but assuming that

[*Polioptila*] *andina* Chapman, Bull. Amer. Mus. N. H., 55, p. 560 (in text), 1926—Huancabamba and Perico, Marañón, Peru (crit.).

*Polioptila buffoni* (not of Selater) Taczanowski, Proc. Zool. Soc. Lond., 1879, p. 223—Guajango, Peru.

*Polioptila nigriceps* (not of Baird) Taczanowski, Proc. Zool. Soc. Lond., 1880, p. 191—Callacate, Peru; idem, Orn. Pér., 1, p. 453, 1884—Guajango and Callacate; Salvin, Nov. Zool., 2, p. 3, 1895—Cajabamba (crit.).

*Polioptila bilineata* (not *Culicivora bilineata* Bonaparte) Salvin, Nov. Zool., 2, p. 2, 1895—Cajabamba, Peru (crit.); Hellmayr, l.c., 8, p. 361, 1901—part, Cajabamba (crit.).

*Range*.—Tropical and Subtropical zones of northern Peru (in the valley of the upper Marañón and its affluents).

2: Peru (Hacienda Limón, ten miles west of Balsas, Dept. Cajamarca, 2).

### *Polioptila lactea* Sharpe.<sup>1</sup> CREAM-BELLIED GNATCATCHER.

*Polioptila lactea* Sharpe, Cat. Bds. Brit. Mus., 10, p. 453, 1885—"South America" (the type examined in the British Museum is a skin of the well-known "Rio" make); Hellmayr, Nov. Zool., 13, p. 316, 1906—Rio de Janeiro (crit., diag.); Ihering and Ihering, Cat. Faun. Braz., 1, p. 329, 1907—Rio Feio, São Paulo (spec. examined); Chubb, Ibis, 1910, p. 607—Sapucay, Paraguay; Dabbene, Anal. Mus. Nac. Hist. Nat. Buenos Aires, 18, p. 364, 1910—Alto Paraná; Hellmayr, in Wytzman, Gen. Av., Part 17, p. 15, 1911—southeastern Brazil (Rio de Janeiro and São Paulo) and Paraguay; Berton, Anal. Soc. Cient. Arg., 75, p. 96, 1913—Puerto

the sexual differences in the Marañón species were the same as those in the members of the *P. plumbea* group, I changed the collector's determination of the white-browed birds and separated them as a darker, larger race of *P. bilineata*. While there can be no doubt as to its distinctness, it is still possible that, despite the black pileum in both sexes and the prominent white eyebrow in the female, *P. major* may prove to be merely an extremely well-marked derivative of the *P. plumbea* group.

*Material examined*.—Dept. Piura: Huancabamba (alt. 6,500 ft.), 4; Pucará (alt. 2,850 ft.), Rio Huancabamba, 1; San Felipe (alt. 5,900 ft.), Rio Huancabamba, 3; Sanderillo (alt. 6,000 ft.), Rio Huancabamba, 1.—Dept. Cajamarca: Perico, Rio Chinchipe, 4; Sauces (alt. 1,500 ft.), Rio Chamaya, 1; Hacienda Limón, west of Balsas, 2; Cajabamba (alt. 9,000 ft.), 8; Hacienda Araqueda (alt. 7,800 ft.), west of Cajabamba, 1.

<sup>1</sup> *Polioptila lactea* Sharpe: Resembles *P. p. bilineata* in having the lores and a broad lengthened superciliary streak white; but back much darker slate gray, under parts delicate creamy yellow, and outermost rectrix wholly white. The top of the head is glossy black in the male, slate gray like the back in the female. Wing, 43–47; tail, 44–46; bill, 10–11.

Specimens from Paraguay (Sapucay) are identical with those from Brazil. This little-known bird, in spite of its striking characters, may ultimately prove to be an offshoot of the *P. plumbea* group. The presence of the conspicuous white supercilium, which recurs in the widely remote *P. p. bilineata*, taken in conjunction with the occasional appearance of a faint yellowish tinge on the under parts of its geographical neighbor *P. p. atricapilla*, is rather suggestive in that respect.

*Material examined*.—Brazil: Rio de Janeiro, 2; Rio Feio, São Paulo, 1.—Paraguay: Sapucay, 4.

Bertoni, Paraguay; idem, Faun. Parag., p. 60, 1914—Puerto Bertoni; Sztolcman, Ann. Zool. Mus. Pol. Hist. Nat., 5, p. 181, 1926—Therezina, Paraná.

*Poliophtila melanocephala* Bertoni, Anal. Cient. Parag., 1, p. 143, Jan., 1901—Paraguay, at 25° 40' S. latitude, in primeval forest (type in coll. of A. de W. Bertoni); Arribáizaga, Anal. Mus. Nac. Hist. Nat. Buenos Aires, 7, p. 369, 1902—Paraguay (crit.).

*Poliophtila leucogastra* (not *Sylvia leucogastra* Wied) Ihering, Rev. Mus. Paul., 3, p. 129, 1899—Rio Ribeira, São Paulo.

*Range*.—Southeastern Brazil, in states of Rio de Janeiro, São Paulo (Rio Feio), and Paraná (Therezina), and in Paraguay (Puerto Bertoni and Sapucay).

**\**Poliophtila plumbea atricapilla* (Swainson).<sup>1</sup> WHITE-BELLIED GNATCATCHER.**

*Sylvia leucogastra* (not *Motacilla leucogastra* Ledru)<sup>2</sup> Wied, Beitr. Naturg. Bras., 3, (2), p. 710, 1831—Sertão of the State of Bahia, Brazil (types now in the American Museum of Natural History, New York; cf. Allen, Bull. Amer. Mus. N. H., 2, p. 213, 1889).

*Culicivora atricapilla* Swainson, Zool. Illust., (n.s.), 2, pl. 57, 1832—no locality indicated, probably Bahia (location of type not stated).

*Poliophtila livida cearensis* Cory, Field Mus. Nat. Hist., Orn. Ser., 1, p. 343, Aug., 1916—Juá, near Iguatú, Ceará (type in Field Museum).

*Culicivora leucogastra* Burmeister, Syst. Uebers. Th. Bras., 3, p. 111, 1856—Bahia.

*Poliophtila leucogastra* Scater, Proc. Zool. Soc. Lond., 23, p. 12, 1855—part, Bahia; idem, Cat. Coll. Amer. Bds., p. 12, 1862—Brazil; Baird, Rev. Amer. Bds., 1, p. 69, 1864—Bahia (crit.); Forbes, Ibis, 1881, p. 327—Parahyba and Pernambuco (Quipapá, Garanhuns); Ridgway, Proc. U. S. Nat. Mus., 5, p. 388, 1882—part, Bahia; Sharpe, Cat. Bds. Brit. Mus., 10, p. 446, 1885—Bahia to Pernambuco (monog.); Hellmayr, Nov. Zool., 8, p. 360, 1901 (diag.); idem, Tierreich, Part 18, p. 24, 1903—Bahia to

<sup>1</sup> *Poliophtila plumbea atricapilla* (Swainson): Similar to *P. p. plumbea*, but back darker gray; edges to greater upper wing coverts bluish gray instead of whitish; primaries exteriorly edged with gray; white margins to secondaries narrower, not reaching to the shaft; black at base of three outer rectrices much more extensive; breast washed with grayish; pileum in female nearly slate color, much darker than, instead of being concolor with, the pale gray back. From *P. p. plumbeiceps*, which it resembles in markings of the wings, it may be distinguished by darker, more slaty, less bluish gray back, more black at the base of the lateral rectrices, and much darker pileum in the female sex.

Some specimens from Ceará and Piauí show a faint creamy tinge on the lower parts, suggesting an approach to *P. lactea*, of southern Brazil.

*Additional material examined*.—Piauí: Parnaguá, 1; Serra near Parnaguá, 1.—Pernambuco: Pão d'Alho, 1.—Bahia: Barra, near Bahia, 1; Bahia, 12; Solidade, near Joazeiro, 2; Fazenda da Serra, Rio Grande, 1; Fazenda Taboa, Rio Preto, 1.

<sup>2</sup> *Motacilla leucogastra* Ledru (Voyage Ténériffe, 1, p. 182, 1810—Teneriffe), now placed in the genus *Sylvia*, prohibits the use of the specific name *leucogastra* for the East Brazilian Gnatcatcher.

Pernambuco (monog.); Nicoll, Ibis, 1904, p. 40—Bahia; Ihering and Ihering, Cat. Faun. Braz., 1, p. 329, 1907—Bahia, Pernambuco, and Piahy; Reiser, Denks. Math.-Naturw. Kl. Akad. Wiss. Wien, 76, p. 77, 1910—Pernambuco (Pão d'Alho, near Recife), Bahia (Barra, Serra de Solidade, Fazenda da Serra, and Fazenda Taboa), and Piahy (Parnaguá, Serra near Parnaguá); Ihering, Rev. Mus. Paul., 9, p. 485, pl. 7, fig. 12 (egg), 1914—Cidade da Barra, Bahia; Snethlage, Bol. Mus. Nac. Rio de Janeiro, 2, No. 6, p. 40, 1926—Ceará.

*Polioptila livida leucogastra* Hellmayr, Nov. Zool., 14, p. 5, 1907—Bahia to Pernambuco; idem, in Wytsman, Gen. Av., Part 17, p. 17, 1911—same localities.

*Polioptila plumbea cearensis* Hellmayr, Field Mus. Nat. Hist., Zool. Ser., 12, p. 257, 1929—Maranhão (Barra da Corda, Codó, Cocos, and Grajahú), Piahy (Ibiapaba, Arára), and Ceará (Varzea Formosa) (crit.).

*Range*.—Northeastern Brazil, from the interior of Maranhão east to Rio Grande do Norte and south to Bahia.

16: Maranhão (Barra da Corda, 1; Codó, Cocos, 3; Grajahú, 1); Piahy (Ibiapaba, 3; Arára, 1); Ceará (Varzea Formosa, 1; Juá, near Iguatú, 3); Bahia (Santo Amaro, 2; Bahia, 1).

**\**Polioptila plumbea plumbea* (Gmelin).<sup>1</sup> BUFFON'S  
GNATCATCHER.**

*Todus plumbeus* Gmelin, Syst. Nat., 1, (1), p. 444, 1788—based on "Todi species tertia" Pallas, Spic. Zool., 1, fasc. 6, p. 17, 1769; Surinam.

*Motacilla livida* Gmelin, Syst. Nat., 1, (2), p. 981, 1789—based on "Figuier de Madagascar" Daubenton, Pl. Enl., pl. 705, fig. 3 (=female); locality erroneous, doubtless Cayenne.

*Sylvia bivittata* Lichtenstein, Verz. Doubl. Berliner Mus., p. 35, 1823—based on *Sylvia caerulea* var.  $\beta$  Latham (Ind. Orn., 2, p. 540, 1790), which, in its turn, is based on "Figuier à tête noire, de Cayenne" Daubenton, Pl. Enl., pl. 704, fig. 1 (=male); Cayenne.

*Motacilla caerulea* (not of Linnaeus, 1766) Boddaert, Tabl. Pl. Enl., p. 44, 1783—based on Daubenton, Pl. Enl., pl. 704, fig. 1 (=male); Cayenne.

*Motacilla caerulea* var.  $\beta$  Gmelin, Syst. Nat., 1, (2), p. 992, 1789—based on Daubenton, Pl. Enl., pl. 704, fig. 1 (=male); Cayenne.

*Polioptila buffoni*(i) Sclater, Proc. Zool. Soc. Lond., 1861, p. 127—part, "Guiana"—Cayenne (type, from Cayenne, now in British Museum); idem, Cat. Coll. Amer. Bds., p. 12, 1862—part, spec. b, Cayenne; Baird, Rev. Amer. Bds., 1, p. 70, 1864 (ex Sclater); Ridgway, Proc. U. S. Nat.

<sup>1</sup> *Polioptila plumbea plumbea* (Gmelin) differs from the other eastern races by the complete absence of the gray external edges to the primaries, much broader white margins to the inner secondaries, and by having the greater upper wing coverts tipped with white or grayish white. Birds from lower Amazonia seem to be identical with a Guianan series.

*Material examined*.—French Guiana: Cayenne, 14; Roche-Marie, 1.—Surinam: vicinity of Paramaribo, 1.—Brazil: Pará, 1; Cachoeira, Marajó, 1; Urucurituba, Rio Tapajóz, 1; Tury-assú, Maranhão, 4.

Mus., 5, p. 388, 1882—Cayenne; Sharpe, Cat. Bds. Brit. Mus., 10, p. 449, 1885—Cayenne (descr.); Hartert, Kat. Vogels. Senck. Ges., p. 97, 1891—Cayenne; Goeldi, Ibis, 1897, p. 161—Amapá, Brazil; Hellmayr, Nov. Zool., 8, p. 359, 1901—Pará (crit.); Penard, Vog. Guyana, 2, p. 511, 1910—Surinam (eggs descr.).

*Poliioptila leucogastra* (not *Sylvia leucogastra* Wied) Sclater, Proc. Zool. Soc. Lond., 23, p. 12, 1855—part, Cayenne.

*Culicivora leucogastra* Bonaparte, Bull. Soc. Linn. Normandie, 2, p. 32, 1857—Cayenne.

*Poliioptila buffoni buffoni* Hellmayr, Nov. Zool., 8, p. 360, 1901 (diag.).

*Poliioptila livida* Hellmayr, Verh. Zool. Bot. Ges. Wien, 53, p. 223, 1903—Cayenne, Amapá, and Pará (crit., synon.); idem, Tierreich, Part 18, p. 27, 1903—French Guiana to Pará (monog.); Ihering, Cat. Faun. Braz., 1, p. 329, 1907—Santarém; Berlepsch, Nov. Zool., 15, p. 107, 1908—Cayenne; Snethlage, Journ. Orn., 56, p. 521, 1908—Arumatheua, Rio Tocantins; idem, l.c., 61, p. 518, 1913—Lower Amazonia (ecology); idem, Bol. Mus. Goeldi, 8, p. 484, 1914—Pará, Quati-purú, Rio Guamá (Santa Maria de São Miguel), Rio Mojú, Rio Tocantins (Arumatheua), Marajó (São Natal, Pindobal, Chaves), and Monte Alegre, Brazil.

*Poliioptila livida livida* Hellmayr, Nov. Zool., 14, p. 4, 1907—Urucurituba, Rio Tapajóz (diag., range); idem, in Wytsman, Gen. Av., Part 17, p. 17, 1912—Surinam, Cayenne, and Lower Amazonia; idem, Abhandl. Math.-Phys. Kl. Bayr. Akad. Wiss., 26, No. 2, pp. 86, 1924, 1912—Pará and Marajó (Cachoeira); Bangs and Penard, Bull. Mus. Comp. Zool., 62, p. 82, 1918—Paramaribo, Surinam; Stone, Proc. Acad. Nat. Sci. Phila., 80, p. 171, 1928—Pará.

*Poliioptila plumbea plumbea* Penard, Auk, 40, p. 335, 1923 (nomencl.); Hellmayr, Field Mus. Nat. Hist., Zool. Ser., 12, p. 257, 1929—Tury-assú, Maranhão.

**Range.**—Dutch and French Guiana, and northern Brazil, south to the forested coast region of Maranhão (Tury-assú), west to Monte Alegre and the Rio Tapajóz.

5: Dutch Guiana (vicinity of Paramaribo, 1); Brazil (Tury-assú, Maranhão, 4).

**\**Poliioptila plumbea parvirostris* Sharpe.<sup>1</sup> SMALL-BILLED GNATCATCHER.**

*Poliioptila parvirostris* Sharpe, Cat. Bds. Brit. Mus., 10, p. 448, 1885—Chamicuros, eastern Peru (type in British Museum examined); Taczanowski,

<sup>1</sup> *Poliioptila plumbea parvirostris* Sharpe: Similar to *P. p. plumbea* in lacking the gray edges to the primaries; but bill decidedly smaller; tips to greater upper wing coverts bluish gray like the back; white margins to inner secondaries narrower; auriculars mostly black like the crown, at best with a few white streaks, while in all the other races they are white like the throat. Female unknown. Wing (three males), 47–48; tail, 45–48; bill, 10.

**Material examined.**—Peru: Chamicuros, 1 (the type); Moyobamba, 1; Juanfué, Rio Huallaga, 1; Tarapoto, 1.

Orn. Pér., 3, p. 505, 1886—Chamicuros; Berlepsch, Journ. Orn., 37, p. 292, 1889—Tarapoto, Rio Huallaga, Peru (crit.).

*Polioptila nigriceps parvirostris* Hellmayr, Nov. Zool., 8, pp. 358, 359, 360, 1901—Tarapoto and Huallaga River, Peru (crit., diag.); idem, Tierreich, Part 18, p. 26, 1903—eastern Peru.

*Polioptila livida parvirostris* Hellmayr, Nov. Zool., 14, p. 5, 1907—southern tributaries of the Peruvian Amazons; idem, in Wytsman, Gen. Av., Part 17, p. 17, 1911—same range.

*Polioptila buffoni* (not of Sclater) Sclater and Salvin, Proc. Zool. Soc. Lond., 1866, p. 177—upper Ucayali, Peru; idem, l.c., 1873, p. 256—Sarayacu, Ucayali, Peru.

**Range.**—Eastern Peru, on the southern tributaries of the Marañón (Sarayacu, Rio Ucayali; Chamicuros; Juanfué, Rio Huallaga; Tarapoto; Moyobamba).

1: Peru (Moyobamba, 1).

**\**Polioptila plumbea innotata* Hellmayr.<sup>1</sup> RIO BRANCO  
GNATCATCHER.**

*Polioptila buffoni innotata* Hellmayr, Nov. Zool., 8, p. 359, 1901—Rio Branco, Brazil, and British Guiana (Quonga, Annai) (types from Forte do São Joaquim, Rio Branco, Brazil, in Vienna Museum).

*Polioptila innotata* Hellmayr, Tierreich, Part 18, p. 26, 1903—British Guiana and Rio Branco (monog.); Ihering, Cat. Faun. Braz., 1, p. 329, 1907 (range); Chubb, Bds. Brit. Guiana, 2, p. 352, 1921—upper Takutu River, Bonasica, Abary River, and "Berbice," British Guiana.

*Polioptila livida innotata* Hellmayr, Nov. Zool., 14, p. 4, 1907—Rio Branco and British Guiana (diag.); idem, in Wytsman, Gen. Av., Part 17, p. 17, 1911—Rio Branco (Forte do São Joaquim) and British Guiana.

*Polioptila plumbea innotata* Penard, Auk, 40, p. 335, 1923 (nomencl.).

*Polioptila leucogastra* (not *Sylvia leucogastra* Wied) Pelzeln, Orn. Bras., 1, p. 70, 1868—part, Forte do Rio Branco.

**Range.**—British Guiana and adjacent districts of extreme northern Brazil (Forte do São Joaquim, Bôa Vista, and Serra da Lua, upper Rio Branco).

9: Brazil (Bôa Vista, Rio Branco, 8; Serra da Lua, near Bôa Vista, 1).

<sup>1</sup> *Polioptila plumbea innotata* Hellmayr: Closely allied to *P. p. plumbea*, but distinguished by bluish gray (not white) apical edges to the greater upper wing coverts, narrower white margins to the inner secondaries, and by having the outer webs of the primaries distinctly edged with gray. From *P. p. parvirostris* it may be separated by white (instead of mostly black) auriculars, the gray margins to the primaries, and longer bill; from *P. p. plumbiceps* by much less black at the base of the lateral rectrices, paler bluish gray back, and less grayish chest and sides. Wing, 47–51, (female) 45–48; tail, 48–51, (female) 45–48; bill, 11–12.

**Material examined.**—British Guiana: Quonga, 2; Annai, 5; Rio Rupununi, 1.—Brazil, Rio Branco: Forte do São Joaquim, 10; Bôa Vista, 8; Serra da Lua, 1.



**\**Poliioptila plumbea plumbiceps* Lawrence.<sup>1</sup> LAWRENCE'S  
GNATCATCHER.**

*Poliioptila plumbiceps* Lawrence, Proc. Acad. Nat. Sci. Phila., 17, p. 37, 1865—Venezuela (type in coll. of Geo. N. Lawrence, now in the American Museum of Natural History, New York; =immature male); Robinson and Richmond, Proc. U. S. Nat. Mus., 18, pp. 681, 685, 1896—Margarita Island and La Guayra, Venezuela (crit.); Robinson, l.c., 24, p. 178, 1901—La Guayra, Venezuela; Clark, Auk, 19, p. 266, 1902—Margarita Island; Lowe, Ibis, 1907, p. 563—Margarita Island (crit.); idem, Ibis, 1909, p. 323—Cariaco, Paria Peninsula, Venezuela; Cory, Field Mus. Nat. Hist., Orn. Ser., 1, pp. 251, 255, 1909—Margarita Island; Todd and Carriker, Ann. Carnegie Mus., 14, p. 407, 1922—Rio Hacha, La Goajira, and Valencia, Santa Marta region, Colombia (crit.).

*Poliioptila livida plumbiceps* Hellmayr, Nov. Zool., 14, p. 4, 1907—part, Venezuela south to the Orinoco (crit.); idem, in Wytsman, Gen. Av., Part 17, p. 17, 1911—part, Venezuela and Valencia, Santa Marta region; Cherrie, Sci. Bull., Mus. Brookl. Inst., 2, p. 150, 1916—middle Orinoco, from Ciudad Bolivar to Maipures (nesting habits).

*Poliioptila buffoni* (not of Sclater) Sclater and Salvin, Proc. Zool. Soc. Lond., 1868, pp. 166, 626—Caripé (Sucre) and Caracas, Venezuela.

*Poliioptila nigriceps* (not of Baird) Salvin and Godman, Ibis, 1880, p. 116—Valencia, east side of Santa Marta Range, Colombia; Sharpe, Cat. Bds. Brit. Mus., 10, p. 447, 1885—part, Caracas, Venezuela; Berlepsch and Hartert, Nov. Zool., 9, p. 9, 1902—Ciudad Bolivar, Altagracia, and Maipures, Rio Orinoco, and Suapure, Rio Caura, Venezuela.

*Poliioptila nigriceps nigriceps* Hellmayr, Nov. Zool., 7, p. 538, 1900—Venezuela (Cumaná; Maipures, Altagracia, Ciudad Bolivar, Rio Orinoco; Suapure, Rio Caura); idem, l.c., 8, pp. 358, 360, 1901—part, Venezuela (diag.); idem, Tierreich, Part 18, p. 25, 1903—part, Venezuela and Margarita Island.

*Poliioptila leucogastra* (not *Sylvia leucogastra* Wied) Ridgway, Proc. U. S. Nat. Mus., 5, p. 388, 1882—part, Venezuela; Allen, Bull. Amer. Mus. N. H., 4, p. 51, 1892—Carúpano, Sucre, Venezuela; Phelps, Auk, 14, p. 363, 1897—Cumaná, Venezuela.

<sup>1</sup> *Poliioptila plumbea plumbiceps* Lawrence: Nearest to *P. p. innotata*, but with much more black at the base of the lateral rectrices, darker gray above, and chest as well as sides more strongly tinged with grayish. In gray-edged primaries, white auriculars, narrow white margins to secondaries, etc., the two forms are, however, identical.

Birds from various parts of Venezuela agree well together. Even two adult males from the Caura Valley (Suapure) show no approach to the Guianan *P. p. innotata*. A single male from El Guayabal, Santander, has the breast and foreneck darker (nearly pale neutral gray) than any other specimen examined, but as birds from Valencia and Rio Hacha do not appreciably differ from those of Venezuela, this is likely to be an individual variation.

*Additional material examined.*—Venezuela: San Felix, Sucre, 13; Carúpano, Sucre, 2; La Guaira, 1; Ciudad Bolivar, Rio Orinoco, 6; Altagracia, Rio Orinoco, 8; Maipures, Rio Orinoco, 1; Suapure, Caura River, 2; San Fernando, Rio Apure, 1.—Colombia: Valencia, 2; Rio Hacha, Goajira, 4.

*Polioptila sclateri* Sharpe, Cat. Bds. Brit. Mus., 10, p. 449, 1885—Venezuela ("Campano"=Carúpano) and Valencia, Santa Marta, Colombia (type from "Venezuela (Spence)" [=Caracas] in British Museum examined).

*Range*.—Northern Venezuela, east to the Paria Peninsula and Margarita Island, south to the Orinoco and its tributaries, and adjacent parts of extreme northeastern Colombia (Valencia, east side of Santa Marta Mountains; La Goajira; El Guayabal, north of San José de Cucuta, Santander).

43: Venezuela (Cumaná, 1; Margarita Island, 19; Puerto Cabello, 1; Macuto, Caracas, 10; Maracay, Aragua, 2; La Ceiba, Trujillo, 2; Maracaibo, 1; Rio Aurare, Zulia, 1; Encontrados, Zulia, 2; Catatumbo River, Zulia, 3); Colombia (El Guayabal, ten miles north of San José de Cucuta, 1).

***Polioptila plumbea anteocularis* Hellmayr.<sup>1</sup> MAGDALENA VALLEY GNATCATCHER.**

*Polioptila nigriceps anteocularis* Hellmayr, Nov. Zool., 7, pp. 537, 538, 1900—"Bogotá," Colombia (type in Berlin Museum).

*Polioptila anteocularis* Hellmayr, Nov. Zool., 8, p. 358, 1901—Bogotá (crit.); Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 714, 1904—"Central Colombia" (crit.).

*Polioptila leucogastra* (not *Sylvia leucogastra* Wied) Sclater, Proc. Zool. Soc. Lond., 23, p. 12, 1855—part, "New Granada"; idem, l.c., 23, p. 151, 1855—Bogotá; Ridgway, Proc. U. S. Nat. Mus., 5, p. 388, 1882—part, Bogotá.

*Polioptila buffoni*(i) Sclater, Proc. Zool. Soc. Lond., p. 127, 1861—part, interior of New Granada; idem, Cat. Coll. Amer. Bds., p. 12, 1862—part, spec. a, Bogotá.

*Polioptila nigriceps* (not of Baird) Sharpe, Cat. Bds. Brit. Mus., 10, p. 447, 1885—part, Bogotá.

*Polioptila nigriceps nigriceps* Hellmayr, Nov. Zool., 8, p. 358, 1901—part, Colombia; idem, Tierreich, Part 18, p. 25, 1903—part, Colombia.

*Polioptila livida plumbiceps* (not of Lawrence) Hellmayr, Nov. Zool., 14, p. 4, 1907—part, Bogotá; idem, in Wytzman, Gen. Av., Part 17, p. 17,

<sup>1</sup> *Polioptila plumbea anteocularis* Hellmayr: Very near to *P. p. plumbiceps*, but slightly larger with heavier, longer bill; upper parts rather darker; chest and sides less shaded with grayish. Wing, 50-54, (female) 49-52; tail, 51-55; bill, 12½-14.

Birds from Honda and Chicoral are absolutely identical with "Bogotá" skins, thus showing the Magdalena Valley to be the habitat of this form. Although, in a former communication (Nov. Zool., 14, pp. 4-5, 1907), we have taken great pains in demonstrating its identity with *P. p. plumbiceps*, the much more extensive material now available, consisting of more than eighty skins of the latter and thirty of *anteocularis*, clearly indicates the soundness of Mr. Ridgway's judgment in discriminating the two races.

*Material examined*.—Colombia: "Bogotá," 24; Honda, 4; Chicoral, 2.

1911—part, Bogotá; Chapman, Bull. Amer. Mus. N. H., 36, p. 507, 1917—Honda and Chicoral, Magdalena Valley, Colombia.

*Range*.—Tropical zone of the Magdalena Valley, Colombia.

1: Colombia ("Bogotá," 1).

***Polioptila plumbea daguae* Chapman.<sup>1</sup> DAGUA RIVER  
GNATCATCHER.**

*Polioptila livida daguae* Chapman, Bull. Amer. Mus. N. H., 34, p. 648, 1915—Los Cisneros [=Juntas], Rio Dagua, western Colombia (type in the American Museum of Natural History, New York); idem, l.c., 36, p. 507, 1917—Los Cisneros.

*Polioptila livida plumbeiceps* (not of Lawrence) Hellmayr, Nov. Zool., 14, p. 4, 1907—part, "Cauca Valley" = Rio Dagua; idem, in Wytsman, Gen. Av., Part 17, p. 17, 1911—part, "Cauca Valley" = Rio Dagua, Colombia.

*Range*.—Tropical zone of western Colombia (valley of the Dagua River).

**\**Polioptila plumbea bilineata* (Bonaparte).<sup>2</sup> WHITE-BROWED  
GNATCATCHER.**

*Culicivora bilineata* Bonaparte, Consp. Gen. Av., 1, p. 316, 1850—Cartagena, Colombia (types in Berlin Museum examined).

*Polioptila bilineata* Sclater, Proc. Zool. Soc. Lond., 23, p. 12, 1855—Cartagena (crit.); idem, l.c., 28, pp. 273, 291, 1860—Babahoyo and Esmeraldas, Ecuador; idem, Cat. Coll. Amer. Bds., p. 13, 1862—same localities; Boucard, Ann. Soc. Linn. Lyon, (n.s.), 25, p. 39, 1878—Guatemala; Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 52, 1879—part,

<sup>1</sup> *Polioptila plumbea daguae* Chapman: Very close to *P. p. anteocularis*, but back conspicuously darker, nearly slate gray, and black color at base of lateral rectrices much more restricted. Wing, (male) 52, (female) 46–48; tail, 48½, (female) 46–47; bill, 12.

In addition to the color characters, this form may be distinguished by its shorter tail and bill. In dimensions and greater amount of white in the tail it approaches *P. p. plumbea*, but is, of course, immediately recognizable by very much darker upper parts, much narrower white margins to inner secondaries, absence of white on greater wing coverts, and possession of gray edges to outer webs of primaries. Two females are not quite so dark as the male, though still darker than any specimen of *P. p. anteocularis* seen by us. The male is—doubtless incorrectly—labeled "Primavera, alt. 1,700 metr.," and probably originated in the Dagua Valley, where the same collector, Raap, secured a female.

*Material examined*.—Colombia: Juntas [=Los Cisneros], 1; Rio Dagua, 1; "Primavera," 1.

<sup>2</sup> *Polioptila plumbea bilineata* (Bonaparte) differs from *P. p. plumbeiceps*, *P. p. anteocularis*, and *P. p. daguae* by possessing very conspicuous white superciliaries involving the lores and a streak above the eye, this feature being particularly well-marked in the (black-crowned) male.

Specimens from the Caribbean coast (typical *bilineata*) agree in whiteness of under parts (and all other respects, as far as I can see) with those from Ecuador and Peru, whence considerable series have been examined; in spite of the fact that the intervening Dagua region of western Colombia is tenanted by the darker *P. p. daguae* without distinct superciliaries. Birds from Panama, eastern and southwestern Costa Rica (Térraba Valley), which have been distinguished as *P.*

Guatemala (Chisee), Nicaragua (Greytown), Costa Rica (Punta Arenas, Turrialba, Angostura, Atirro, and Guiatil), Panama (Bugaba, Lion Hill, Chepo), Colombia, Ecuador; Nutting, Proc. U. S. Nat. Mus., 5, p. 387, 1882—La Palma de Nicoya, Costa Rica; Ridgway, l.c., 5, pp. 387, 388, 389, 1882 (crit.); Zeledón, Anal. Mus. Nac. Costa Rica, 1, p. 105, 1887—Angostura, Costa Rica; Ridgway, Proc. U. S. Nat. Mus., 10, p. 585, 1888—Segovia River, Honduras; Sharpe, Cat. Bds. Brit. Mus., 10, p. 452, 1885—Costa Rica (Turrialba, Punta Arenas), Guatemala (Chisee), Panama (Bugaba, Lion Hill, Chepo, Veragua), Ecuador (Babahoyo, Esmeraldas, Puna Island, Guayaquil), and Peru (Pacasmayo); Taczanowski and Berlepsch, Proc. Zool. Soc. Lond., 1885, p. 71—Yaguachi, Ecuador; Cherrie, Anal. Inst. Fis.-Geog. y Mus. Nac. Costa Rica, 4, p. 133, 1893—Boruca, Térraba, and Buenos Aires, southwestern Costa Rica; Richmond, Proc. U. S. Nat. Mus., 16, p. 482, 1893—Rio Escondido and Greytown, Nicaragua; Bangs, Proc. Biol. Soc. Wash., 12, p. 144, 1898—Santa Marta; Salvadori and Festa, Boll. Mus. Zool. Torino, 14, No. 357, p. 5, 1899—Babahoyo, Guayaquil, Vices, Balzar, and Puntilla de Santa Elena, Ecuador; Allen, Bull. Amer. Mus. N. H., 13, p. 181, 1900—Bonda, Santa Marta; Goodfellow, Ibis, 1901, p. 312—Santo Domingo, Ecuador; Bangs, Auk, 18, p. 368, 1901—Divalá, Chiriquí; Hellmayr, Nov. Zool., 8, p. 360, 1901—part, southwestern Costa Rica (Boruca, Buenos Aires) and Peru (Tembladera); idem, Tierreich, Part 18, p. 27, 1903 (monog., range); Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 726, 1904—Veragua (Chitrá) to Caribbean coast of Colombia (monog.); Chapman, Bull. Amer. Mus. N. H., 55, p. 559, 1926—western Ecuador (from Esmeraldas to Pullango) and northwestern Peru (Tumbez, Sullana, Lamor, Paletillas, Samate, Chilaco, Palambla); Griscom, Amer. Mus. Nov., 414, p. 5, 1930 (crit.).

*Poliophtila superciliaris* Lawrence, Ann. Lyc. Nat. Hist. N. Y., 7, p. 304, 1861—Lion Hill, Panama Railroad (type in coll. of G. N. Lawrence, now in the American Museum of Natural History, New York); idem, l.c., p. 322, 1861—Lion Hill; Baird, Rev. Amer. Bds., 1, p. 71, 1864—Isthmus of Panama (crit.); Sclater and Salvin, Proc. Zool. Soc. Lond., 1864, p. 344—Isthmus of Panama (crit.); Lawrence, Ann. Lyc. Nat. Hist. N. Y., 8, p. 179, 1865—Greytown, Nicaragua; idem, l.c., 9, p. 92, 1868—Angostura, Atirro, and Guiatil, Costa Rica; Salvin, Ibis, 1866, p. 190—Chisee,

*superciliaris* by Lawrence, Ridgway and others, are not satisfactorily separable; a conclusion reached by us long ago (cf. Gen. Av., Part 17, pp. 15–16, 1911) and recently endorsed by Griscom (Amer. Mus. Nov., 414, p. 6, 1930). While admitting that they are on average more grayish underneath, exceptions to this rule are too frequent to justify the recognition of a northern race. All of the numerous specimens examined from the Térraba Valley and eastern Costa Rica have well-developed white superciliaries. Birds from the highlands and central parts of Pacific Costa Rica, whence no material is available, are said to be similar. A single adult male from Nicaragua (Tuma, Matagalpa) and another from Vera Paz, Guatemala, are typical of *bilineata*, and according to Griscom, it is the present form that ranges into British Honduras and Quintana Roo.

*Material examined.*—Peru: Pacasmayo, 3; Tembladera, 10; Tumbez, 1.—Ecuador: Guayaquil, 3; Balzar, 11; Chimbo, 3; "Nanegal," 1; Carondelet, Prov. Esmeraldas, 3.—Colombia: Cartagena (the types), 2; Bonda, 2.—Panama: Lion Hill, 3; Chitrá, 1; Chiriquí, 1.—Costa Rica: Térraba Valley, 7; Guayábo, 4; Pejivalle, 1.—Nicaragua: Tuma, Matagalpa, 1.—Guatemala: "Vera Paz," 1.

Guatemala; idem, Proc. Zool. Soc. Lond., 1870, p. 182—Bugaba, Chiriquí; Carriker, Ann. Carnegie Mus., 6, p. 750, 1910—Costa Rica (in part).

*Polioptila albilora* (not *P. albiloris* Selater and Salvin) Taczanowski, Proc. Zool. Soc. Lond., 1877, pp. 319, 750—Tumbez, Peru (eggs descr.).

*Polioptila albiloris* Taczanowski, Proc. Zool. Soc. Lond., 1879, p. 223—Pacasmayo, Peru; idem, Orn. Pér., 1, p. 452, 1884—Guadalupa, Tumbez, Lechugal, and Pacasmayo, Peru; Zeledón, Anal. Mus. Nac. Costa Rica, 1, p. 105, 1887—Liberia and Cartago, Costa Rica.

*Polioptila superciliaris magna* Ridgway, Proc. Biol. Soc. Wash., 16, p. 110, 1903—Cartago, Costa Rica (type in U. S. National Museum); idem, Bull. U. S. Nat. Mus., 50, Part 3, p. 728, 1904—Cartago; Ferry, Field Mus. Nat. Hist., Orn. Ser., 1, p. 273, 1910—Guayábo, Costa Rica.

*Polioptila superciliaris superciliaris* Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 727, 1904—Isthmus of Panama to Guatemala (monog.); Bangs, Auk, 24, p. 304, 1907—Boruca, Paso Real, Pózo del Río Grande, and Barránca, western Costa Rica; Peters, Auk, 30, p. 377, 1913—Camp Mengel, Quintana Roo; Stone, Proc. Acad. Nat. Sci. Phila., 70, p. 271, 1918—Gatun, Panama; Rendahl, Ark. Zool., 12, No. 8, p. 36, 1919—San Juan del Norte, Nicaragua; Kennard and Peters, Proc. Bost. Soc. N. H., 38, p. 459, 1928—Almirante, Panama; Austin, Bull. Mus. Comp. Zool., 69, p. 387, 1929—Mountain Cow, British Honduras; Peters, l.c., 71, p. 330, 1931—Western River, Panama.

*Polioptila bilineata bilineata* Hellmayr, in Wytsman, Gen. Av., Part 17, p. 15, 1911—Central America south to northern Colombia and northwestern Peru (crit., meas.); Bangs and Noble, Auk, 35, p. 456, 1918—Sullana, Peru; Todd and Carriker, Ann. Carnegie Mus., 14, p. 407, 1922—Bonda and Fundación, Santa Marta; Darlington, Bull. Mus. Comp. Zool., 71, p. 407, 1931—Rio Frio, Magdalena, Colombia; Griscom, Amer. Mus. Nov., 414, p. 7, 1930—part, Ecuador and Colombia north to Guatemala and Quintana Roo (crit.).

**Range.**—Tropical zone of northwestern Peru (south to Pacasmayo) and western Ecuador; Caribbean coast of Colombia, east to the western base of the Santa Marta Mountains; and Central America, from Panama north to British Honduras and Quintana Roo, on the western slope as far north as Punta Arenas, Costa Rica.

16: Peru (Pacasmayo, 3); Ecuador (Puente de Chimbo, 2; Carondelet, Prov. Esmeraldas, 1); Costa Rica (Buenos Aires, 2; Térraba Valley, 2; Boruca, 1; Guayábo, 4; Pejivalle, 1).

**\**Polioptila plumbea albiventris* Lawrence.<sup>1</sup> YUCATAN  
GNATCATCHER.**

<sup>1</sup>*Polioptila plumbea albiventris* Lawrence: Differs from *P. p. bairdi* and *P. "albiloris"* by paler bluish gray upper parts and nearly pure white lower surface with hardly a perceptible grayish tinge on the sides of the chest.

This form, in the male sex, apparently never has distinct white superciliaries, though suggestions of a narrow supraloral streak sometimes occur in individual specimens. The wings are slightly shorter (44–47 mm.) than in the related races.

Seven specimens from Yucatan examined.

*Polioptila albiventris* Lawrence, Ann. N. Y. Acad. Sci., 3, p. 273, 1885—Temax, Yucatan (type in coll. of Geo. N. Lawrence, now in the American Museum of Natural History, New York); Ridgway, Man. N. Amer. Bds., p. 569, 1887—Yucatan; Stone, Proc. Acad. Nat. Sci. Phila., 1890, p. 211—Progreso, Yucatan; Hellmayr, Tierreich, Part 18, p. 24, 1903—Yucatan; Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 729, 1904—Yucatan (monog.).

*Polioptila nigriceps albiventris* Hellmayr, in Wytsman, Gen. Av., Part 17, p. 16, 1911—Yucatan.

*Polioptila bilineata albiventris* Griscom, Amer. Mus. Nov., 414, p. 7, 1930—Yucatan (crit.).

*Polioptila bilineata* (not *Culicivora bilineata* Bonaparte) Boucard, Proc. Zool. Soc. Lond., 1883, p. 439—Progreso, Yucatan; Salvin, Ibis, 1888, p. 246—Cozumel Island (crit.).

*Polioptila nigriceps* (not of Baird) Sharpe, Cat. Bds. Brit. Mus., 10, p. 447, 1885—part, spec. b, Mérida, Yucatan.

*Range*.—Northern Yucatan (Temax, Mérida, Progreso) and Cozumel Island.

3: Yucatan (unspecified, 3).

**\**Polioptila plumbea albiloris* Sclater and Salvin.<sup>1</sup> WHITE-LORED GNATCATCHER.**

*Polioptila albiloris* Sclater and Salvin, Proc. Zool. Soc. Lond., 1860, p. 298—Motagua Valley, Zacapa, Guatemala (types, now in British Museum, examined); idem, Ibis, 1860, p. 397—Chuacus, Rio Motagua; Owen, Ibis, 1861, p. 61, pl. 2, fig. 3 (egg)—Chuacus (nest and egg descr.); Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 53, pl. 5, figs. 1, 2, 1879—part, Chuacus, Guatemala; Sharpe, Cat. Bds. Brit. Mus., 10, p. 454, 1885—part, spec. d, e, Chuacus, Guatemala; Hellmayr, Tierreich, Lief. 18, p. 28, 1903—part, Guatemala; Ridgway, Bull. U. S. Nat. Mus., 50,

<sup>1</sup> *Polioptila plumbea albiloris* Sclater and Salvin: "Distinguished from *P. p. bairdi* by longer tail; loral region in winter immaculate white, in summer usually solid black, sometimes with scattering white feathers; white supra-auricular streak frequently present." (van Rossem, l.c.).

This form, not recognized by Griscom, is considered by van Rossem as the Atlantic representative of *P. p. bairdi*. With only seven specimens from the type locality at hand we are hardly in a position to pass judgment on its validity. Taken as a whole, they have more white in the loral region than the majority from the Pacific slope, though an adult male from Tehuantepec is barely distinguishable. The dusky postocular streak, while well-marked in some females, is merely suggested in others. The difference in the length of the tail I am unable to corroborate. It ranges from 46 (minimum of females) to 51 (maximum of males) in Motagua Valley, from 46 to 50 in Guanacaste and Salvador (La Union) birds.

The distribution of *P. p. albiloris* is not clear either. In Guatemala it is supposed to be restricted to the Motagua Valley, while in other parts of Vera Paz *P. p. bilineata* is found. Van Rossem gives its range as extending into "southern Mexico" without specification, but Griscom refers birds from British Honduras and Quintana Roo to *P. p. bilineata*.

*Material examined*.—Guatemala: Chuacus (the types), 2; El Rancho, 4; Gualan, 1.

Part 3, p. 725, 1904—part, Guatemala (Chuacus); Dearborn, Field Mus. Nat. Hist., Orn. Ser., 1, p. 136, 1907—El Rancho and Gualan, Zacapa, Guatemala; Griscom, Amer. Mus. Nov., 414, p. 6, 1930—Progreso, Motagua Valley, Guatemala (crit.).

*Polioptila albiloris albiloris* Hellmayr, in Wytzman, Gen. Av., Part 17, p. 16, 1911—part, Guatemala (Chuacus).

*Polioptila bilineata albiloris* Griscom, Amer. Mus. Nov., 414, p. 7, 1911—part, Guatemala (Rio Motagua Valley from Progreso to Gualan); van Rossem, Auk, 48, p. 34, 1931—Atlantic drainage in the interior of Guatemala and "southern Mexico" (crit.).

**Range.**—Atlantic side of Guatemala (Motagua Valley) and "southern Mexico" (fide van Rossem).

5: Guatemala, Zacapa (El Rancho, 4; Gualan, 1).

**\**Polioptila plumbea bairdi* Ridgway.<sup>1</sup> BAIRD'S GNATCATCHER.**

*Polioptila bairdi* Ridgway, Proc. Biol. Soc. Wash., 16, p. 110, 1930—San Juan del Sur, western Nicaragua (type in U. S. National Museum); idem, Bull. U. S. Nat. Mus., 50, Part 3, p. 726, 1904—western Nicaragua and Costa Rica (monog.); Carriker, Ann. Carnegie Mus., 6, p. 751, 1910—Bagáces, Miravalles, Bebedéro, and Ciruélas, northwestern Costa Rica.

*Polioptila albiloris* (not of Sclater and Salvin) Baird, Rev. Amer. Bds., 1, p. 70, 1864—Grenada and Realejo, western Nicaragua (crit.); Lawrence, Bull. U. S. Nat. Mus., 4, p. 12, 1876—Tehuantepec (Tehuantepec City and Santa Efigenia); Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 53, 1879—part, Mexico (Santa Efigenia, Tehuantepec) and Nicaragua (Grenada and Realejo); Ridgway, Proc. U. S. Nat. Mus., 5, pp. 387, 388, 389, 1882—Nicaragua (Realejo) and Oaxaca (Tapana, Tehuantepec City, and Santa Efigenia) (crit.); Nutting, l.c., 6, p. 373, 1883—San Juan del Sur, western Nicaragua; Sharpe, Cat. Bds. Brit. Mus., 10, p. 454, 1885

<sup>1</sup> *Polioptila plumbea bairdi* Ridgway: Nearest to *P. p. bilineata*, but superciliary stripe rarely present, the white being mostly restricted to a narrow supra-loral streak. According to van Rossem, the loral region is solid black in summer, white with a dusky streak from anterior corner of eye to bill in winter. In the black-lored plumage this form can hardly be distinguished from *P. p. plumbiceps*, of Venezuela. Specimens with white superciliaries from northwestern Costa Rica have been identified as *P. p. bilineata*, but in my opinion erroneously so. A very instructive series from Bebedéro shows every gradation from the "*bilineata*" stage to the black-lored variety and leaves scarcely any doubt that the variation is purely individual, the birds with white eyebrows probably indicating a reversion to some ancestral character.

I am by no means sure that the birds from Mexico are really referable to *P. p. bairdi*. Compared with the series from Guanacaste and two adult males from La Union, El Salvador, they have slightly longer tails, and the females lack the dusky postocular streak along the upper portion of the auriculars. As I am not sufficiently acquainted with the characters of *P. nigriceps*, I follow van Rossem, though hesitatingly, in assigning the Mexican specimens to *P. p. bairdi*.

**Material examined.**—Northwestern Costa Rica: Bebedéro, 12; Bagáces, 1; Las Cañas, 2; Miravalles, 4.—El Salvador: La Union, 3.—Mexico, Oaxaca: Salina Cruz, 1; Sierra Santo Domingo, Tehuantepec, 1; Tehuantepec, 5; Iguala, Guerrero, 2; Tierra Colorada (alt. 2,000 ft.), Pacific slope, Guerrero, 1; Santiago, Nayarit, 1; San Blas, Nayarit, 5.

—part, spec. a-c, Tehuantepec and La Union, Salvador; Hellmayr, Tierreich, Part 18, p. 28, 1903—part, Isthmus of Tehuantepec and Costa Rica (Miravalles).

*Polioptila albiloris albiloris* Hellmayr, in Wytzman, Gen. Av., Part 17, p. 16, 1911—part, Oaxaca, Mexico.

*Polioptila bilineata* (not *Culicivora bilineata* Bonaparte) Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 52, 1879—part, La Union, Salvador; Nutting, Proc. U. S. Nat. Mus., 6, p. 380, 1883—Sucuyá, Nicaragua.

*Polioptila nigriceps* (not of Baird) Lawrence, Bull. U. S. Nat. Mus., 4, p. 12, 1876—Tehuantepec (Tapana, Santa Efigenia) and Oaxaca (Quiotepec); Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 52, 1879—part, same localities; Ridgway, Proc. U. S. Nat. Mus., 5, p. 387, 1882—part, Oaxaca and Tehuantepec; Sharpe, Cat. Bds. Brit. Mus., 10, p. 447, 1885—part, spec. a, b, La Union, Salvador; Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 729, 1904—part, Oaxaca localities and references; Bangs and Peters, Bull. Mus. Comp. Zool., 68, p. 398, 1928—Chivelá and Tapana-tepec, Oaxaca.

*Polioptila nigriceps nigriceps* Hellmayr, Tierreich, Part 18, p. 25, 1903—part, Oaxaca, Tehuantepec, San Salvador, and Costa Rica [=Bebedéro]; idem, in Wytzman, Gen. Av., Part 17, p. 17, 1911—part, Oaxaca and Salvador.

*Polioptila*—(?) Underwood, Ibis, 1896, p. 432—Miravalles, northwestern Costa Rica.

*Polioptila nigriceps restricta* (not of Brewster) Hellmayr, Nov. Zool., 7, pp. 536, 537, 538, 1900—"Costa Rica" [=Bebedéro].

*Polioptila bilineata albiloris* Griscom, Amer. Mus. Nov., 414, p. 7, 1930—part, northwestern Costa Rica, western Nicaragua, and Oaxaca (Chivelá and Tehuantepec).

*Polioptila bilineata bairdi* van Rossem, Auk, 48, p. 34, 1931—Pacific slope from northwestern Costa Rica to San Blas, Nayarit (crit.).

**Range.**—Pacific coast of Central America, from northwestern Costa Rica (Prov. Guanacaste) through Nicaragua, El Salvador, Guatemala, and southern Mexico north to San Blas, Nayarit.

5: Costa Rica (Las Cañas, Guanacaste, 2); Mexico (Tehuantepec, Oaxaca, 1; Iguala, Guerrero, 2).

### ***Polioptila nigriceps nigriceps* Baird.<sup>1</sup> BLACK-HEADED GNATCATCHER.**

*Polioptila nigriceps* Baird, Rev. Amer. Bds., 1, p. 69, 1864—Mazatlan, Sinaloa (type in U. S. National Museum); Lawrence, Mem. Bost. Soc. N. H., 2, p. 267, 1874—Mazatlan, Sinaloa, and Tepic, Nayarit; Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 79, 1879—part, Mazatlan and Tepic;

<sup>1</sup> *Polioptila nigriceps nigriceps* Baird: "Bill decidedly smaller [than in the Central American races of *P. plumbea*]; head concolor with back in post-juvenal and winter plumage; general coloration darker and more slaty gray with rump and flanks definitely tinged with brownish or buffy; decidedly different from the paler bluish or ash gray tones of the more southern species; tail with more black on the



Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 729, 1904—part, Sinaloa and Tepic localities and references.

*Polioptila nigriceps nigriceps* Hellmayr, Nov. Zool., 7, p. 538, 1900—part, "northern" Mexico; idem, l.c., 8, p. 358, 1901—part, Mazatlan and Tepic; idem, Tierreich, Part 18, p. 25, 1903—part, Mazatlan and Tepic; idem, in Wytzman, Gen. Av., Part 17, p. 17, 1911—part, Mazatlan and Tepic; McLellan, Proc. Calif. Acad. Sci., (4), 16, p. 39, 1927—near Labrados, Sinaloa; van Rossem, Auk, 48, p. 36, 1931—from Culiacan, Sinaloa, to Tepic, Nayarit (crit.).

*Range*.—Western Mexico, from Culiacan, Sinaloa, south to Nayarit (Tepic) and probably Jalisco (Beltran).

***Polioptila nigriceps restricta* Brewster.<sup>1</sup> SONORA GNATCATCHER.**

*Polioptila nigriceps restricta* Brewster, Auk, 6, p. 97, 1889—Alamos, Sonora (type in coll. of W. Brewster, now in Museum of Comparative Zoology, Cambridge, Mass.; cf. Bangs, Bull. Mus. Comp. Zool., 70, p. 342, 1930); Hellmayr, Nov. Zool., 8, p. 358, 1901—Sonora; idem, Tierreich, Part 18, p. 26, 1903—Sonora; van Rossem, Auk, 48, p. 36, 1930—Sonora (crit.); idem, Trans. San Diego Soc. N. H., 6, p. 278, 1931—Sonora (Tecoripa, San Javier, Tésia, Chinobampo, Obregón, Tóbari Bay, ten miles north of Guaymas, Guiricoba).

*Polioptila nigriceps* (not of Baird) Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 729, 1904—part, Sonora (Alamos); Hellmayr, in Wytzman, Gen. Av., Part 17, p. 17, 1911—part, Sonora (Alamos).

*Range*.—Northwestern Mexico, in State of Sonora, and probably extending into extreme northern Sinaloa.

**\**Polioptila melanura melanura* Lawrence. PLUMBEOUS GNATCATCHER.**

*Polioptila melanura* Lawrence, Ann. Lyc. Nat. Hist. N. Y., 6, p. 168, 1858—"Texas, California" (type from Ringgold Barracks, Texas, in the American Museum of Natural History, New York).

*Polioptila plumbea* (not *Culicivora plumbea* Baird) Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 731, 1904—part (monog., full bibliog.).

basal portions of the lateral rectrices. Wing (male) 47; tail, 51; bill, 13.6." (van Rossem, l.c.).

Van Rossem considers this bird to be specifically distinct from the other black-headed gnatcatchers of Central America, and points out that, besides presenting a marked difference in the coloration of the post-juvenile and winter plumage, it overlaps geographically the range of *P. p. bairdi* in certain parts of Nayarit.

We are hardly acquainted with it, a single male from Sinaloa being in too poor a condition to be of much use. Another male from Beltran, Jalisco (Apr. 26, 1889. Wm. Lloyd), in the British Museum collection, seems to answer van Rossem's definition, suggesting an even wider southward distribution of this form.

<sup>1</sup> *Polioptila nigriceps restricta* Brewster: "Similar to *P. n. nigriceps*, but black of head [in the male sex] in summer plumage much less extensive and not extending over nape." (van Rossem, l.c.).

Van Rossem, who had ample material (over thirty specimens) for comparison, recognizes this form as distinct. We have not yet met with it.

*Polioptila plumbea plumbea* Hellmayr, in Wytsman, Gen. Av., Part 17, p. 13, 1911 (range, part).

*Polioptila melanura melanura* Penard, Auk, 40, p. 335 (in text), 1923 (crit.); van Rossem, Condor, 33, pp. 35, 36 (in text), 1931 (crit.).

**Range.**—Rio Grande Valley of Texas, south to Tamaulipas, and Nuevo Leon.

1: Texas (Laredo, 1).

**\**Polioptila melanura lucida* van Rossem.<sup>1</sup> SONORA GNATCATCHER.**

*Polioptila melanura lucida* van Rossem, Condor, 33, p. 36 (in text), 1931—ten miles north of Guaymas, Sonora (type in collection of Donald R. Dickey, Pasadena, California); idem, Trans. San Diego Soc. N. H., 6, p. 278, 1931—Sonora localities.

*Culicivora plumbea* (not *Todus plumbeus* Gmelin, 1788) Baird, Proc. Acad. Nat. Sci. Phila., 7, p. 118, June, 1854—Bill Williams River, Arizona (type in U. S. National Museum).

*Polioptila plumbea* Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 731, 1904—part (monog., full bibliog.); Miller, Bull. Amer. Mus. N. H., 22, p. 182, 1906—Rancho Baillon, Durango.

*Polioptila plumbea plumbea* Hellmayr, in Wytsman, Gen. Av., Part 17, p. 13, 1911 (range in part).

*Polioptila melanura melanura* Grinnell, Univ. Calif. Pub. Zool., 32, p. 228, 1928—Colorado Desert district of Lower California.

**Range.**—From southern New Mexico to the Colorado Desert region of Lower California, north to extreme southeastern California, south through Chihuahua and Sonora to Durango.<sup>2</sup>

9: Arizona (Camp Lowell, 2; Florence, 2; Pinal County, 1; Portal, 1); California (Baregas Springs, 2; Palm Springs, 1).

**\**Polioptila melanura californica* Brewster.<sup>3</sup> BLACK-TAILED GNATCATCHER.**

*Polioptila californica* Brewster, Bull. Nutt. Orn. Cl., 6, p. 103, 1881—Riverside, San Bernardino County, California (type now in Museum of Comparative Zoology, Cambridge, Mass.); Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 734, 1904 (monog., full bibliog.); Hellmayr, in Wytsman, Gen. Av., Part 17, p. 14, 1911 (range); Grinnell, Pac. Coast Avifauna, 11, p. 169, 1915—southwestern California.

<sup>1</sup> *Polioptila melanura lucida* van Rossem: Similar to *P. m. melanura*, but differs by smaller size, particularly of the bill; paler under parts; paler and less extensively gray flanks.

<sup>2</sup> The Gnatcatcher from Tiburón Island, Sonora, has been separated as *P. m. curtata* van Rossem (Trans. San Diego Soc. N. H., 7, p. 140, 1932).

<sup>3</sup> *Polioptila melanura californica* Brewster: Similar to *P. m. melanura*, but differs by darker coloration and smaller amount of white on the rectrices.

*Poliophtila melanura californica* Grinnell, Proc. Calif. Acad. Sci., (4), 15, p. 496 (in text), 1926 (crit.); idem, Univ. Calif. Pub. Zool., 32, p. 227, 1928—northwestern Lower California.

*Range*.—San Diegan district of southern California from Ventura south to about latitude 30° in northwestern Lower California.

6: California (Riverside, 1; Claremont, 2; Taluca, 2; Corona, 1).

***Poliophtila melanura pontilis* van Rossem.<sup>1</sup> SAN FRANCISQUITO GNATCATCHER.**

*Poliophtila melanura nelsoni* (not *Poliophtila nelsoni* Ridgway, 1903) van Rossem, Condor, 33, p. 35, 1931—San Francisquito Bay, Lower California (type in collection of Donald R. Dickey, Pasadena, California).

*Poliophtila melanura pontilis* van Rossem, Proc. Biol. Soc. Wash., 44, p. 99, 1931—new name for *P. melanura nelsoni* van Rossem, preoccupied.

*Poliophtila plumbea* (not *Culicivora plumbea* Baird) Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 731, 1904—part (monog., full bibliog.).

*Poliophtila californica* (not of Brewster) Thayer and Bangs, Condor, 9, p. 138, 1907—Santana and Rosarito, Lower California (crit.).

*Poliophtila plumbea plumbea* Hellmayr, in Wytzman, Gen. Av., Part 17, p. 13, 1911 (range in part).

*Poliophtila melanura margaritae* (not of Ridgway) Grinnell, Proc. Calif. Acad. Sci., (4), 15, p. 497, 1926—middle Lower California; idem, Univ. Calif. Pub. Zool., 32, p. 228, 1928—middle Lower California.

*Range*.—Middle section of Lower California (San Francisquito Bay, Santa Theresa Bay, Santa Ana Bay, Santa Rosalia, San Lucas, San Bruno, San Ignacio, and Port San Bartolomé).

**\**Poliophtila melanura margaritae* Ridgway.<sup>2</sup> SANTA MARGARITA GNATCATCHER.**

*Poliophtila margaritae* Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 733, footnote, 1904—Santa Margarita Island, Lower California (type in U. S. National Museum).

*Poliophtila plumbea* (not *Culicivora plumbea* Baird) Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 731, 1904—part.

<sup>1</sup> *Poliophtila melanura pontilis* van Rossem: "In color and size intermediate between *margaritae* of the Cape region and *californica* of southwestern California and northwestern Lower California." (van Rossem, l.c.).

As no other description of this form, for which the author originally proposed a preoccupied name, has been published, we are unable to supply a more satisfactory characterization, having no material whatever from its supposed range.

<sup>2</sup> *Poliophtila melanura margaritae* Ridgway: Similar to *P. m. californica*, but tail shorter, and coloration decidedly paler, less slate-gray.

According to van Rossem, birds from the Cape San Lucas region (*abbreviata*) are indistinguishable from those of Margarita and Espiritu Santo Islands, while it is the inhabitants of the middle section of Lower California, which are paler and have longer tails, that ought to have been separated.

*Polioptila plumbea plumbea* Hellmayr, in Wytsman, Gen. Av., Part 17, p. 13, 1911 (range in part).

*Polioptila melanura abbreviata* Grinnell, Proc. Calif. Acad. Sci., (4), 15, p. 497, 1926—Cape San Lucas, Lower California (type in California Academy of Sciences, San Francisco); idem, Univ. Calif. Pub. Zool., 32, p. 229, 1928—"Cape District proper," Lower California.

*Polioptila melanura margaritae* van Rossem, Condor, 33, p. 35 (in text), 1931 (crit.).

**Range.**—Cape San Lucas region, and Espiritu Santo and Margarita Islands, Lower California.

**\**Polioptila lembeyi* (Gundlach). CUBAN GNATCATCHER.**

*Culicivora lembeyi* Gundlach, Ann. Lyc. Nat. Hist. N. Y., 6, p. 273, 1858—eastern Cuba (nest, eggs, song); Lawrence, l.c., 6, p. 276, 1858—Cuba (crit.).

*Polioptila lembeyi* Gundlach, Journ. Orn., 20, p. 410, 1872—Cuba (crit., habits, nest, eggs); idem, Contrib. Orn. Cub., p. 61, 1873—Cuba (habits); Hellmayr, Tierreich, Lief. 18, p. 19, 1903—Cuba (monog.); Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 735, 1904—Cuba (monog., full bibliog.); Hellmayr, in Wytsman, Gen. Av., Part 17, p. 13, 1912—Cuba; Barbour, Mem. Nutt. Orn. Cl., 6, p. 105, 1923—eastern Cuba.

*Polioptila lembeyi* Cory, Auk, 3, p. 22, 1886—Cuba (monog.); Sharpe, Cat. Bds. Brit. Mus., 10, p. 444, 1885—Cuba (monog.); Cory, Bds. W. Ind., p. 36, 1889—Cuba (monog.); Chapman, Bull. Amer. Mus. N. H., 4, p. 312, 1892—Casilda, near Trinidad, Cuba.

**Range.**—Island of Cuba (eastern section), Greater Antilles.

9: Cuba (Casilda, 4; Novaliches, Los Caños, 2; unspecified, 3).

Subfamily REGULINAE. Kinglets

Genus **REGULUS** Cuvier

*Regulus* Cuvier, Leç. d'Anat. Comp., 1, tab. 11, 1800—type, by tautonymy, "Le Roitelet"=*Motacilla regulus* Linnaeus in Cuvier, Tabl. Elém. Hist. Nat., p. 220, 1798.

*Corthylio* Cabanis, Journ. Orn., 1, p. 83, 1853—type, by orig. desig., *Motacilla calendula* Linnaeus.

**\**Regulus regulus satrapa* Lichtenstein.<sup>1</sup> EASTERN GOLDEN-CROWNED KINGLET.**

*Regulus satrapa* Lichtenstein, Verz. Doubl. Berliner Mus., p. 35, 1823—North America (type in Berlin Museum).

<sup>1</sup> *Regulus cuvieri* Audubon (Bds. Amer., 1, pl. 55, 1829; Orn. Biog., 1, p. 288, 1831), based on a specimen shot in June, 1812, at Fatland Ford, about ten miles west of Norristown, Pennsylvania, and never rediscovered since, is probably a fictitious bird. Cf. Check-List N. Amer. Bds., 4th ed., p. 372, 1931.

*Regulus tricolor* Nuttall, Man. Orn. U. S. and Canada, 1, p. 420, 1832—based on *Sylvia regulus* Wilson, Amer. Orn., 1, p. 126, pl. 8, fig. 2, 1808; eastern North America (type in Peale's Museum).

*Regulus reguloides* Jardine, ed. Wilson, Amer. Orn., 1, p. 127, 1832—North America.

*Regulus satrapa satrapa* Hellmayr, Tierreich, Lief. 18, p. 12, 1903—eastern North America; Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 700, 1904—eastern North America (monog., full bibliog.).

*Regulus regulus satrapa* Hellmayr, in Wytzman, Gen. Av., Part 17, p. 8, 1911—North America.

**Range.**—Eastern North America, from Alberta, Manitoba, Quebec, and Cape Breton Island south to Minnesota, Michigan, New York, the highlands of Massachusetts, and in the higher Alleghenies south to North Carolina; in winter south to Florida and Tamaulipas, Mexico.

44: Maine (Cape Elizabeth, 1; New Vineyard, 1); Massachusetts (Brookline, 1; Salvin Hill, 1); Connecticut (East Hartford, 8); New York (Shelter Island, 1); Ohio (Columbus, 3); Illinois (Laverne, 3; Deerfield, 1; Joliet, 1; Beach, 2; Roby, 2; Glen Ellyn, 3; Lake Forest, 1); Wisconsin (Beaver Dam, 10); Florida (Town Point, 4); Texas (Ingram, 1).

**\**Regulus regulus olivaceus* Baird. WESTERN GOLDEN-CROWNED KINGLET.**

[*Regulus satrapa*] var. *olivaceus* Baird, Rev. Amer. Bds., 1, p. 65 (in text), 1864—Simiahmoo, Washington (type in U. S. National Museum).

*Regulus satrapa olivaceus* Hellmayr, Tierreich, Lief. 18, p. 12, 1903—Pacific side of North America; Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 702, 1904—western North America (monog., full bibliog.).

*Regulus regulus olivaceus* Hellmayr, in Wytzman, Gen. Av., Part 17, p. 8, 1911—western North America.

**Range.**—Western North America, from Alaska (Kodiak Island and Kenai Peninsula) south to the San Jacinto Mountains, California, and New Mexico.

14: British Columbia (Okanagan, 1); Oregon (Tillamook, 1; Logan, 2); Montana (Columbia Falls, 3); California (Clipper Gap, 3; Nicasio, 2; Oakland, 1; Monterey, 1).

**\**Regulus regulus clarus* Dearborn.<sup>1</sup> GUATEMALAN GOLDEN-CROWNED KINGLET.**

<sup>1</sup> *Regulus regulus clarus* Dearborn: Closely similar to *R. r. olivaceus*, but decidedly brighter olivaceous above with the grayish nuchal collar more restricted.

In spite of Nelson's dictum (Auk, 15, p. 160, 1898) that the type of *R. s. aztecus* is merely a "winter" specimen of the Western Golden-crowned Kinglet,

(?) *Regulus satrapa aztecus* Lawrence, Ann. N. Y. Acad. Sci., 4, p. 66, 1887—Mexico City (type in coll. of G. N. Lawrence, now in the American Museum of Natural History, New York); Ridgway, Man. N. Amer. Bds., p. 591, 1887 (after Aug. 20)—Mexico City.

*Regulus satrapa clarus* Dearborn, Field Mus. Nat. Hist., Orn. Ser., 1, p. 134, 1907—Sierra Santa Elena, Guatemala (type in Field Museum of Natural History, Chicago); Griscom, Bull. Amer. Mus. N. H., 64, p. 286, 1932—Santa Ilania, Guatemala (habits).

*Regulus regulus clarus* Hellmayr, in Wytzman, Gen. Av., Part 17, p. 8, 1911—Guatemala.

*Regulus satrapa* (not of Lichtenstein) Sclater, Proc. Zool. Soc. Lond., 25, p. 212, 1857—Orizaba, Vera Cruz (one young bird); idem, l.c., 28, p. 250, 1860—Orizaba; Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 48, 1879—part, Orizaba and Guatemala (road from Totonicapam to Los Encuentros).

**Range.**—Highlands of southern Mexico (Real del Monte, Hidalgo; Orizaba, Vera Cruz) and Guatemala.

7: Mexico (Real del Monte, Hidalgo, 1); Guatemala (Tecpam, 3; Sierra Santa Elena, 3).

**\**Regulus calendula calendula* (Linnaeus).<sup>1</sup> EASTERN RUBY-CROWNED KINGLET.**

*Motacilla calendula* Linnaeus, Syst. Nat., 12th ed., 1, p. 337, 1766—based on (Brisson ex) Edwards, Glean. Nat. Hist., 1, p. 95, pl. 254; Pennsylvania.

*Parus griseus* Gmelin, Syst. Nat., 1, (2), p. 1010, 1789—based on "Parus griseus vertice rubro" O. F. Müller, Zool. Dan. Prodr., p. 34, 1776; Greenland.

*Regulus rubineus* Vieillot, Hist. Nat. Ois. Amér. Sept., 2, p. 49, pls. 104, 105, "1807"—new name for *Motacilla calendula* Linnaeus.

*Regulus calendula calendula* Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 705, 1904—part, northern and eastern North America (monog., full bibliog.); Hellmayr, in Wytzman, Gen. Av., Part 17, p. 9, pl., fig. 5, 1911—North America.

I am by no means sure that such is really the case. While it has generally been assumed that *R. r. olivaceus* extends its winter migrations to the highlands of Mexico, the evidence in support of this theory seems to me very unsatisfactory. Kinglets obviously breed in the vicinity of Orizaba (witness the taking by Botteri of a young bird, as recorded by Sclater), and as an adult male collected by W. B. Richardson at Real del Monte, Hidalgo, is undoubtedly referable to *R. r. clarus*, they are likely to belong to that form, too. In view of these circumstances I cannot but cast serious doubts on the identification of *R. s. aztecus*, although Dearborn, when separating the Guatemalan race, examined Lawrence's type and declared it to be an "unusually dark specimen of *R. olivaceus*." It seems much more probable that the bird from Mexico City is subspecifically identical with the resident form of Central America instead of being a migrant from the western United States. The case should be carefully investigated by someone equipped with the necessary material.

<sup>1</sup> The structural differences separating *R. calendula* from the other kinglets seem to me good specific characters, but do not call for generic distinctness.

*Range*.—North America, from northwestern Alaska, Mackenzie, Manitoba, and Quebec to southern Arizona, New Mexico, Ontario, New Brunswick, and Nova Scotia, casually Michigan and Maine; in winter south to Mexico, Guatemala, and Lower California.

101: Maine (Cape Elizabeth, Portland, 1); Massachusetts (Brookline, 2; Wakefield, 1; Watertown, 1); Connecticut (East Hartford, 14); New York (North Haven, 1); Florida (Amelia Island, 1; Santa Rosa Island, 1; Rosewood, 1; Wilson, 1; East Pass, 3; Town Point, 18); Louisiana (New Orleans, 4; Buras, 2); Texas (Laredo, 3; Falfurrias, 1; Ingram, 1; Corpus Christi, 2); Arkansas (Winslow, 1); Iowa (Iowa City, 1); Illinois (Chicago, 4; Deerfield, 2; Ravinia, 1; Lake Forest, 7; Beach, 1; Grand Chain, 5; Grand Crossing, 1); Wisconsin (Beaver Dam, 5); Michigan (Kent County, 1); Arizona (Whipple Barracks, 2; Fort Huachuca, 1); Colorado (Fort Lyon, 1); New Mexico (Members, 6); Chihuahua (Chihuahua, 1); Coahuila (Sabinas, 1); Hidalgo (Real del Monte, 1); Mexico (Tenango del Valle, 1).

**\**Regulus calendula cineraceus* Grinnell.<sup>1</sup> WESTERN RUBY-CROWNED KINGLET.**

*Regulus calendula cineraceus* Grinnell, Condor, 6, p. 25, 1904—Strain's Camp, Mount Wilson, Los Angeles County, California (type in coll. of J. Grinnell, now in Museum of Vertebrate Zoology, Berkeley); Hellmayr, in Wytsman, Gen. Av., Part 17, p. 9, 1911—mountains of southern California.

*Corthylio calendula cineraceus* Grinnell, Univ. Calif. Pub. Zool., 32, p. 226, 1928—Lower California (monog.).

*Range*.—California, from the Siskiyou Mountains and Sierra Nevada south to Tulare County, also in the San Gabriel, San Bernardino, and San Jacinto Mountains, and northern Idaho; in winter in the San Diego district and in the interior valleys west of the Sierra Nevada, and throughout Lower California.

8: California (Monterey, 2; Los Gatos, 3; Clipper Gap, 1; Nicasio, 2).

**\**Regulus calendula grinnelli* Palmer. SITKA KINGLET.**

*Regulus calendula grinnelli* Palmer, Auk, 14, p. 399, 1897—Sitka, Alaska (type in U. S. National Museum); Hellmayr, Tierreich, Lief. 18, p. 15, 1903—Sitka; Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 709, 1904—Pacific coast district from British Columbia to Alaska (monog., full bibliog.); Hellmayr, in Wytsman, Gen. Av., Part 17, p. 9, 1911 (range).

<sup>1</sup> *Regulus calendula cineraceus* Grinnell: Similar to *R. c. calendula*, but larger and grayer, less olivaceous.

*Range*.—Pacific coast district, from Prince William Sound and Skagway, Alaska, to British Columbia; in winter south to middle California.

5: British Columbia (Okanagan, 2; Vancouver, 1); Oregon (Netarts, 1; Logan, 1).

**\**Regulus calendula obscurus* Ridgway. DUSKY KINGLET.**

*Regulus calendula obscurus* Ridgway, Bull. U. S. Geol. and Geogr. Surv. Terr., 2, No. 2, p. 184, 1876—Guadalupe Island, off Lower California (type in U. S. National Museum); Hellmayr, Tierreich, Lief. 18, p. 15, 1903—Guadalupe Island; Ridgway, Bull. U. S. Nat. Mus., 50, Part 3, p. 710, 1904—Guadalupe Island (monog., full bibliog.); Hellmayr, in Wytzman, Gen. Av., Part 17, p. 9, 1911—Guadalupe Island.

*Regulus obscurus* Bryant, Bull. Calif. Acad. Sci., 6, p. 314, 1877—Guadalupe Island (habits, nest, and eggs).

*Corthylio calendula obscurus* Grinnell, Univ. Calif. Pub. Zool., 32, p. 226, 1928—Guadalupe Island.

*Range*.—Guadalupe Island, off Lower California.

1: Guadalupe Island.



# INDEX

**Bold-faced type denotes names adopted in this work.**

	PAGE		PAGE
abariensis, Planesticus	386	albinucha, Sitta	99
abbreviata, Polioptila	510	albinucha, Thryomanes	199
abbreviatus, Parus	75	albinucha, Thryothorus	198
abbreviatus, Penthestes	75	albinucha, Troglodytes	199
acaciaram, Auriparus	87	albipectus, Thryophilus	160
Acanthopneuste	484	albipectus, Thryothorus	161
Accentor	106	albiventer, Merula	400
accentor, Catharus	476	albiventer, Planesticus	400
acentetus, Microcerculus	283	albiventer, Turdus	400
achrusterus, Merula	352	albiventris, Allenia	340
achrusterus, Planesticus	353	albiventris, Margarops	340
achrusterus, Turdus	352	albiventris, Mimocichla	447
acosmus, Troglodytes	238	albiventris, Planesticus	382
aculeata, Sitta	94	albiventris, Polioptila	503
adamsi, Nesomimus	335	albiventris, Sialia	479
aedon, Troglodytes	217	albiventris, Thryothorus	192
aequatorialis, Cistothorus	120	albo-brunneus, Heleodytes	131
aequinoctialis, Troglodytes	231	albogriseus, Mimus	326
aestuarinus, Cistothorus	127	albo-lineatus, Donacobius	350
aestuarinus, Telmatodytes	127	albo-vittatus, Donacobius	350
affabilis, Baeolophus	84	alexandrae, Sitta	95
affinis, Campylorhynchus	148	aliciae, Hylocichla	458
affinis, Cyanocorax	20	aliciae, Turdus	458
affinis, Heleodytes	148	Allenia	339
affinis, Nesomimus	335	almae, Hylocichla	458
agilis, Parus	73	alticola, Catharus	469
agilis, Penthestes	73	alticola, Certhia	103
alascensis, Nannus	252	alticola, Cistothorus	118
alascensis, Olbiorchilus	252	alticola, Xanthoura	33
alascensis, Parus	77	alticolus, Heleodytes	137
alascensis, Penthestes	78	altiloquus, Turdus	390
alascensis, Poecila	77	amaurochalina, Merula	398
alascensis, Troglodytes	252	amaurochalinus, Planesticus	398
albescens, Certhia	102	amaurochalinus, Turdus	396
albescens, Parus	71	amaurogaster, Pheugopedius	196
albescens, Perisoreus	67	amaurogaster, Thryothorus	196
albibrunneus, Campylorhynchus	131	amazonica, Sphenura	192
albicans, Troglodytes	226	amazonicus, Thryothorus	192
albicapilla, Pica	24	americana, Certhia	100
albicaudus, Mimus	332	americana, Troglodytes	217
albicilius, Buglodytes	130	americanus, Cinclus	106
albicilius, Heleodytes	129	americanus, Corvus	3
albicollis, Merula	366	amoena, Semimerula	423
albicollis, Planesticus	366	amoenissima, Polioptila	486
albicollis, Troglodytes	187	amoenus, Planesticus	423
albicollis, Turdus	366	amoenus, Turdus	423
albidior, Catharus	472	anabelae, Sialia	480
albifrons, Catherpes	277	anachoreta, Henicorhina	267
albifrons, Certhia	277	andina, Polioptila	493
albigularis, Cyphorhinus	184	angelae, Cyanolyca	43
albigularis, Heterocnemis	280	annectens, Cyanocitta	63
albigularis, Microcerculus	280	annectens, Cyanura	63
albigularis, Pheugopedius	185	annectens, Pheugopedius	196
albigularis, Thryothorus	184	annexus, Baeolophus	86
albilateralis, Henicorhina	258	annexus, Parus	85
albiloris, Polioptila	504	Anorthura	216

<b>antellus, Mimus</b> .....	312	<b>atricristatus, Parus</b> .....	81
<b>anteocularis, Polioptila</b> .....	500	<b>atroglularis, Pheugopedius</b> .....	182
<b>anthonyi, Cinclus</b> .....	107	<b>atroglularis, Thryothorus</b> .....	182
<b>anthracinus, Planesticus</b> .....	423	<b>atro-sericea, Merula</b> .....	414
<b>anthracinus, Turdus</b> .....	422	<b>atrosericea, Semimerula</b> .....	413
<b>antillarum, Mimus</b> .....	314	<b>atro-sericeus, Planesticus</b> .....	414
<b>Antimimus</b> .....	295	<b>atro-sericeus, Turdus</b> .....	413
<b>antioquensis, Microcerculus</b> .....	284	<b>atroinctus, Turdus</b> .....	363
<b>Aphelocoma</b> .....	50	<b>audax, Troglodytes</b> .....	236
<b>apicalis, Allenia</b> .....	340	<b>auduboni, Hylodichla</b> .....	455
<b>apicalis, Turdus</b> .....	340	<b>auduboni, Turdus</b> .....	455
<b>apolinari, Cistothorus</b> .....	124	<b>aurantia, Haploichla</b> .....	449
<b>Aquatilis</b> .....	106	<b>aurantia, Merula</b> .....	450
<b>aquilonalis, Planesticus</b> .....	384	<b>aurantia, Semimerula</b> .....	450
<b>aquilonalis, Turdus</b> .....	384	<b>aurantiistrois, Catharus</b> .....	472
<b>arada, Leucolepis</b> .....	288	<b>aurantiistrois, Turdus</b> .....	472
<b>arada, Myrmornis</b> .....	288	<b>aurantius, Turdus</b> .....	449
<b>arada, Turdus</b> .....	288	<b>auricularis, Hemiura</b> .....	250
<b>Arceuthornis</b> .....	351	<b>auricularis, Troglodytes</b> .....	250
<b>arctica, Erythaca</b> .....	482	<b>Auriparus</b> .....	86
<b>arctica, Sialia</b> .....	482	<b>aurorus, Turdus</b> .....	424
<b>ardesiaca, Mimocichla</b> .....	446	<b>australis, Orpheus</b> .....	323
<b>ardesiacus, Cinclus</b> .....	108	<b>australis, Sialia</b> .....	480
<b>ardosiacea, Mimocichla</b> .....	446	<b>azteca, Cyanocitta</b> .....	64
<b>ardosiaceus, Turdus</b> .....	446	<b>aztecus, Regulus</b> .....	512
<b>arenaceus, Mimus</b> .....	328	<b>aztecus, Troglodytes</b> .....	217
<b>arenicola, Harporhynchus</b> .....	302	<b>azurea, Calocitta</b> .....	13
<b>arenicola, Toxostoma</b> .....	302	<b>azurea, Sialia</b> .....	477
<b>argentigula, Cyanocitta</b> .....	49	<b>azureus, Corvus</b> .....	28
<b>argentigula, Cyanocorax</b> .....	50	<b>azureus, Cyanocorax</b> .....	28
<b>argentigula, Cyanolyca</b> .....	49		
<b>Argurocitta</b> .....	29	<b>Baeolophus</b> .....	70
<b>arizonae, Aphelocoma</b> .....	55	<b>bahamensis, Mimus</b> .....	311
<b>arizonae, Cyanocitta</b> .....	55	<b>bahiae, Thryothorus</b> .....	156
<b>armillata, Cyanocitta</b> .....	44	<b>baileyae, Parus</b> .....	76
<b>armillata, Cyanolyca</b> .....	44	<b>baileyae, Penthestes</b> .....	76
<b>armillata, Xanthura</b> .....	45	<b>bairdi, Polioptila</b> .....	505
<b>armillatus, Cyanocorax</b> .....	44	<b>bairdi, Sialia</b> .....	481
<b>armillatus, Myiadestes</b> .....	437	<b>bairdi, Thryomanes</b> .....	215
<b>armillatus, Ptilogonys</b> .....	437	<b>bairdi, Thryothorus</b> .....	215
<b>arhuri, Planesticus</b> .....	396	<b>balteatus, Campylorhynchus</b> .....	136
<b>arhuri, Turdus</b> .....	396	<b>balteatus, Heleodytes</b> .....	136
<b>arundinaceus, Troglodytes</b> .....	154	<b>bambla, Cyphorinus</b> .....	280
<b>assimilis, Leucolepis</b> .....	293	<b>bambla, Formicarius</b> .....	279
<b>assimilis, Merula</b> .....	360	<b>bambla, Heterocnemis</b> .....	280
<b>assimilis, Planesticus</b> .....	360	<b>bambla, Microcerculus</b> .....	279
<b>assimilis, Turdus</b> .....	360	<b>bangsi, Catharus</b> .....	471
<b>atacamensis, Troglodytes</b> .....	237	<b>bangsi, Henicorhina</b> .....	267
<b>atkinsi, Sitta</b> .....	93	<b>barbouri, Perisoreus</b> .....	66
<b>atopus, Troglodytes</b> .....	224	<b>barlowi, Parus</b> .....	80
<b>atra, Platycichla</b> .....	429	<b>barlowi, Penthestes</b> .....	80
<b>atratus, Parus</b> .....	76	<b>baroni, Thryophilus</b> .....	168
<b>atratus, Penthestes</b> .....	76	<b>baroni, Thryothorus</b> .....	168
<b>atricapilla, Culicivora</b> .....	495	<b>barringtoni, Nesomimus</b> .....	336
<b>atricapilla, Polioptila</b> .....	495	<b>basuloi, Thryorchilus</b> .....	255
<b>atricapillus, Donacobius</b> .....	347	<b>bauri, Nesomimus</b> .....	338
<b>atricapillus, Parus</b> .....	70	<b>beani, Troglodytes</b> .....	220
<b>atricapillus, Penthestes</b> .....	71	<b>beckeri, Troglodytes</b> .....	232
<b>atriceps, Pheugopedius</b> .....	198	<b>beecheii, Cissilopha</b> .....	38
<b>atriceps, Thryothorus</b> .....	198	<b>beecheii, Cyanocitta</b> .....	39
<b>atricristatus, Baeolophus</b> .....	81	<b>beecheii, Cyanocorax</b> .....	39
<b>atricristatus, Lophophanes</b> .....	81	<b>beecheii, Pica</b> .....	38

beecheii, <i>Xanthura</i> .....	39	bromia, <i>Cyanocitta</i> .....	60
beecheyi, <i>Cyanocorax</i> .....	39	browni, <i>Thryorchilus</i> .....	254
beecheyi, <i>Cyanolyca</i> .....	39	browni, <i>Troglodytes</i> .....	254
bellus, <i>Cyanocorax</i> .....	22	brunneicapillus, <i>Campylorhynchus</i> .....	149
bendirei, <i>Harporhynchus</i> .....	298	brunneicapillus, <i>Heleodytes</i> ...	148
bendirei, <i>Toxostoma</i> .....	298	brunneicapillus, <i>Picolaptes</i> .....	149
bennettii, <i>Pica</i> .....	11	brunneiceps, <i>Cistothorus</i> .....	120
bensoni, <i>Catharus</i> .....	476	brunneiceps, <i>Henicorhina</i> .....	265
berlandieri, <i>Thryothorus</i> .....	155	brunneicollis, <i>Troglodytes</i> .....	243
berlepschi, <i>Catharus</i> .....	465	brunnescens, <i>Cyphorhinus</i> .....	292
berlepschi, <i>Henicorhina</i> .....	262	brunnescens, <i>Leucolepis</i> .....	292
berlepschi, <i>Polioptila</i> .....	490	brunneus, <i>Thryothorus</i> .....	176
berlepschi, <i>Thryothorus</i> .....	189	bryanti, <i>Heleodytes</i> .....	147
berlepschi, <i>Turdus</i> .....	369	bryanti, <i>Mimocichla</i> .....	447
bermudensis, <i>Sialia</i> .....	477	buffoni, <i>Polioptila</i> .....	496
bermudianus, <i>Galeoscoptes</i> .....	305	Buglodytes.....	128
bewickii, <i>Thryomanes</i> .....	210	bullockii, <i>Pica</i> .....	12
bewickii, <i>Troglodytes</i> .....	210		
bicknelli, <i>Hylocichla</i> .....	459	cacaloti, <i>Corvus</i> .....	2
bicolor, <i>Baeolophus</i> .....	81	cacozela, <i>Merula</i> .....	420
bicolor, <i>Heleodytes</i> .....	130	cacozela, <i>Semimerula</i> .....	420
bicolor, <i>Heterocnemis</i> .....	281	cacozelus, <i>Planesticus</i> .....	420
bicolor, <i>Microcerculus</i> .....	281	cacozelus, <i>Turdus</i> .....	419
bicolor, <i>Parus</i> .....	81	caerulea, <i>Motacilla</i> .....	485
bilineata, <i>Culicivora</i> .....	501	caerulea, <i>Pica</i> .....	28
bilineata, <i>Polioptila</i> .....	501	caerulea, <i>Polioptila</i> .....	485
bindloei, <i>Nesomimus</i> .....	336	caeruleocephala, <i>Cyanocorax</i> .....	33
birchalli, <i>Catharus</i> .....	473	caeruleocephala, <i>Xanthura</i> ...	33
bivittata, <i>Sylvia</i> .....	496	caeruleocollis, <i>Sialia</i> .....	481
blandita, <i>Cyanolyca</i> .....	50	caerulescens, <i>Melanotis</i> .....	303
bogotana, <i>Cyanocitta</i> .....	45	caerulescens, <i>Orpheus</i> .....	303
bogotensis, <i>Cinnycerthia</i> .....	113	caeruleus, <i>Cyanocorax</i> .....	28
bogotensis, <i>Presbys</i> .....	113	caesiogaster, <i>Polioptila</i> .....	485
bogotensis, <i>Thryophilus</i> .....	165	cahooni, <i>Troglodytes</i> .....	243
bogotensis, <i>Thryothorus</i> .....	165	calandria, <i>Mimus</i> .....	329
boliviana, <i>Culicivora</i> .....	488	calandria, <i>Orpheus</i> .....	329
boliviana, <i>Henicorhina</i> .....	264	calendula, <i>Motacilla</i> .....	512
boliviana, <i>Polioptila</i> .....	491	calendula, <i>Regulus</i> .....	512
bolivianus, <i>Pheugopedius</i> .....	189	californica, <i>Aphelocoma</i> .....	52
bolivianus, <i>Thryothorus</i> .....	188	californica, <i>Polioptila</i> .....	508
bonapartii, <i>Cichlerminia</i> .....	451	californicus, <i>Aegithalos</i> .....	89
bonariae, <i>Troglodytes</i> .....	240	californicus, <i>Garrulus</i> .....	52
borealis, <i>Cyanocitta</i> .....	61	californicus, <i>Psaltiriparus</i> .....	89
brachypterus, <i>Donacobius</i> .....	349	Callicitta.....	11
brachyrhynchus, <i>Corvus</i> .....	3	Calliope.....	483
brachyrhynchus, <i>Garrulus</i> .....	67	Calocitta.....	11
brachyura, <i>Cinlocerthia</i> .....	343	calophonus, <i>Thryomanes</i> .....	211
brachyura, <i>Hemiura</i> .....	272	camtschatkensis, <i>Calliope</i> .....	484
brachyurus, <i>Nannorchilus</i> .....	272	camtschatkensis, <i>Turdus</i> .....	484
brachyurus, <i>Ramphocinclus</i> ...	343	cana, <i>Motacilla</i> .....	485
brachyurus, <i>Troglodytes</i> .....	272	canadatus, <i>Mimus</i> .....	307
brachyurus, <i>Turdus</i> .....	343	canadensis, <i>Corvus</i> .....	67
branickii, <i>Odontorchilus</i> .....	152	canadensis, <i>Perisoreus</i> .....	67
brasiliensis, <i>Donacobius</i> .....	347	canadensis, <i>Sitta</i> .....	96
brasiliensis, <i>Mimus</i> .....	347	canadensis, <i>Turdus</i> .....	352
brasiliensis, <i>Turdus</i> .....	347	canescens, <i>Sitta</i> .....	98
brevicauda, <i>Thryomanes</i> .....	214	canicauda, <i>Chamaea</i> .....	106
brevipennis, <i>Campylorhynchus</i> ...	143	caniceps, <i>Catharus</i> .....	466
brevipes, <i>Platycichla</i> .....	426	caniceps, <i>Sitta</i> .....	97
brevirostris, <i>Campylorhynchus</i> ...	140	canifrons, <i>Cinnicerthia</i> .....	111
brevirostris, <i>Heleodytes</i> .....	140	canifrons, <i>Limnornis</i> .....	110
brevirostris, <i>Troglodytes</i> .....	123	canobrunneus, <i>Pheugopedius</i> .....	202

<b>canobrunneus, Thryothorus</b> . . . . .	202	<b>cerverai, Ferminia</b> . . . . .	216
<b>cantans, Cyphorhinus</b> . . . . .	288	<b>Chamaea</b> . . . . .	104
<b>cantans, Turdus</b> . . . . .	288	<b>chapmani, Troglodytes</b> . . . . .	228
<b>cantator, Catharus</b> . . . . .	463	<b>charienturus, Thryomanes</b> . . . . .	213
<b>cantator, Thryothorus</b> . . . . .	193	<b>chavezii, Cissilopha</b> . . . . .	41
<b>caparo, Turdus</b> . . . . .	384	<b>cherriei, Myadestes</b> . . . . .	438
<b>capistratus, Campylorhynchus</b> . . . . .	143	<b>cherriei, Myiadestes</b> . . . . .	438
<b>capistratus, Heleodytes</b> . . . . .	143	<b>chiapensis, Campylorhynchus</b> . . . . .	145
<b>capistratus, Picolaptes</b> . . . . .	143	<b>chiapensis, Heleodytes</b> . . . . .	145
<b>capitalis, Henicorhina</b> . . . . .	269	<b>chiguanco, Merula</b> . . . . .	421
<b>capitalis, Perisoreus</b> . . . . .	68	<b>chiguanco, Planesticus</b> . . . . .	421
<b>captus, Psilorhinus</b> . . . . .	17	<b>chiguanco, Semimerula</b> . . . . .	421
<b>capucinus, Turdus</b> . . . . .	374	<b>chiguanco, Turdus</b> . . . . .	421
<b>carabayae, Troglodytes</b> . . . . .	234	<b>chihuahuac, Sitta</b> . . . . .	99
<b>caracasensis, Cistothorus</b> . . . . .	119	<b>chilensis, Cyanocorax</b> . . . . .	26
<b>carbonacea, Cyanocitta</b> . . . . .	62	<b>chilensis, Psilorhinus</b> . . . . .	25
<b>carbonaria, Platycichla</b> . . . . .	428	<b>chilensis, Troglodytes</b> . . . . .	238
<b>carbonarius, Thryomanes</b> . . . . .	214	<b>chloronota, Xanthoura</b> . . . . .	34
<b>carbonarius, Turdus</b> . . . . .	425	<b>chloronotos, Pica</b> . . . . .	30
<b>caribbaea, Merula</b> . . . . .	380	<b>chochi, Turdus</b> . . . . .	404
<b>carinatus, Cyphorhinus</b> . . . . .	288	<b>chrysops, Cyanocorax</b> . . . . .	17
<b>carinatus, Thryothorus</b> . . . . .	288	<b>chrysops, Garrulus</b> . . . . .	18
<b>carlottae, Cyanocitta</b> . . . . .	61	<b>chrysops, Pica</b> . . . . .	17
<b>carolinensis, Dumetella</b> . . . . .	305	<b>chubbi, Cichlopsis</b> . . . . .	433
<b>carolinensis, Galeoscoptes</b> . . . . .	306	<b>Cichlerminia</b> . . . . .	450
<b>carolinensis, Muscicapa</b> . . . . .	305	<b>Cichlherminia</b> . . . . .	450
<b>carolinensis, Parus</b> . . . . .	72	<b>Cichlopsis</b> . . . . .	431
<b>carolinensis, Penthestes</b> . . . . .	72	<b>cimiciphagus, Corvus</b> . . . . .	39
<b>carolinensis, Sitta</b> . . . . .	93	<b>Cinclocerthia</b> . . . . .	344
<b>caroliniana, Certhia</b> . . . . .	154	<b>cinclaps, Zoothera</b> . . . . .	343
<b>carriboeus, Turdus</b> . . . . .	380	<b>Cinclus</b> . . . . .	106
<b>carringtoni, Nesomimus</b> . . . . .	336	<b>cineraceus, Baeolophus</b> . . . . .	84
<b>Caryocatactes</b> . . . . .	9	<b>cineraceus, Corthylio</b> . . . . .	513
<b>casius, Merula</b> . . . . .	378	<b>cineraceus, Lophophanes</b> . . . . .	84
<b>casius, Planesticus</b> . . . . .	377	<b>cineraceus, Parus</b> . . . . .	84
<b>casius, Turdus</b> . . . . .	377	<b>cineraceus, Regulus</b> . . . . .	513
<b>cassini, Cyanocorax</b> . . . . .	10	<b>cinereum, Toxostoma</b> . . . . .	297
<b>castanea, Henicorhina</b> . . . . .	269	<b>cinereus, Harporhynchus</b> . . . . .	297
<b>castaneus, Campylorhynchus</b> . . . . .	144	<b>cinereus, Myadestes</b> . . . . .	435
<b>castaneus, Heleodytes</b> . . . . .	144	<b>cinereus, Odontorchilus</b> . . . . .	151
<b>castaneus, Thryophilus</b> . . . . .	179	<b>cinereus, Pheugopedius</b> . . . . .	172
<b>castaneus, Thryothorus</b> . . . . .	178	<b>cinereus, Thryophilus</b> . . . . .	171
<b>castanonotus, Thryophilus</b> . . . . .	173	<b>cinereus, Thryothorus</b> . . . . .	171
<b>castanonotus, Thryothorus</b> . . . . .	172	<b>cinnamomea, Cinnycerthia</b> . . . . .	110
<b>catalinae, Thryomanes</b> . . . . .	213	<b>Cinnycerthia</b> . . . . .	110
<b>Catharus</b> . . . . .	461	<b>Cissilopha</b> . . . . .	37
<b>Catherpes</b> . . . . .	276	<b>Cistothorus</b> . . . . .	114
<b>caucae, Planesticus</b> . . . . .	409	<b>clarionensis, Corvus</b> . . . . .	2
<b>caucae, Turdus</b> . . . . .	409	<b>clarus, Catharus</b> . . . . .	470
<b>caurensis, Microcerculus</b> . . . . .	280	<b>clarus, Troglodytes</b> . . . . .	227
<b>caurensis, Pheugopedius</b> . . . . .	194	<b>clarus, Regulus</b> . . . . .	511
<b>caurensis, Thryothorus</b> . . . . .	194	<b>Cleptes</b> . . . . .	10
<b>caurinus, Corvus</b> . . . . .	5	<b>cnephosa, Merula</b> . . . . .	364
<b>caurinus, Planesticus</b> . . . . .	353	<b>cnephosa, Planesticus</b> . . . . .	365
<b>caurinus, Turdus</b> . . . . .	353	<b>cnephosus, Turdus</b> . . . . .	364
<b>cayanus, Corvus</b> . . . . .	24	<b>cobbi, Troglodytes</b> . . . . .	242
<b>cayanus, Cyanocorax</b> . . . . .	24	<b>coburni, Turdus</b> . . . . .	351
<b>cearensis, Polioptila</b> . . . . .	495	<b>coelestis, Aphelocoma</b> . . . . .	59
<b>cecaumenorum, Psaltriparus</b> . . . . .	91	<b>coerulescens, Aphelocoma</b> . . . . .	50
<b>cerroensis, Thryomanes</b> . . . . .	214	<b>coerulescens, Corvus</b> . . . . .	50
<b>cerroensis, Thryothorus</b> . . . . .	214	<b>coerulescens, Garrulus</b> . . . . .	51
<b>Certhia</b> . . . . .	100	<b>cognatus, Pheugopedius</b> . . . . .	184

<b>colimae, Aphelocoma</b> .....	57	<b>crotopezus, Turdus</b> .....	368
<b>collii, Calocitta</b> .....	11	<b>cryptoleucus, Corvus</b> .....	3
<b>collii, Pica</b> .....	11	<b>cryptus, Thyomanes</b> .....	210
<b>collina, Henicorhina</b> .....	268	<b>cucullata, Cyanolyca</b> .....	47
<b>colombianus, Planesticus</b> .....	388	<b>cucullatus, Cyanocorax</b> .....	47
<b>colombianus, Turdus</b> .....	388	<b>cumanensis, Planesticus</b> .....	414
<b>coloratus, Myadestes</b> .....	442	<b>cumanensis, Thyrophilus</b> .....	174
<b>columbae, Troglodytes</b> .....	226	<b>cumanensis, Thyrothorus</b> .....	174
<b>columbiana, Nucifraga</b> .....	9	<b>cumanensis, Troglodytes</b> .....	174
<b>columbianus, Corvus</b> .....	9	<b>cumanensis, Turdus</b> .....	414
<b>columbianus, Mimus</b> .....	316	<b>currucoides, Motacilla</b> .....	482
<b>columbianus, Parus</b> .....	78	<b>currucoides, Sialia</b> .....	482
<b>columbianus, Penthestes</b> .....	79	<b>curvirostre, Toxostoma</b> .....	298
<b>columbianus, Pheugopedius</b> .....	208	<b>curvirostris, Campylorhynchus</b> .....	141
<b>columbianus, Thyrothorus</b> .....	208	<b>curvirostris, Heleodytes</b> .....	141
<b>concolor, Cyanocorax</b> .....	58	<b>curvirostris, Orpheus</b> .....	298
<b>conditus, Thyrophilus</b> .....	167	<b>cuzcoensis, Cyanolyca</b> .....	42
<b>conditus, Thyrothorus</b> .....	167	<b>cyanea, Aphelocoma</b> .....	51
<b>confinis, Planesticus</b> .....	354	<b>Cyanecula</b> .....	483
<b>confinis, Turdus</b> .....	354	<b>cyaneus, Garrulus</b> .....	51
<b>connectens, Thyrophilus</b> .....	178	<b>cyaneus, Turdus</b> .....	347
<b>connectens, Thyrothorus</b> .....	177	<b>cyanocapilla, Xanthoura</b> .....	34
<b>conradi, Turdus</b> .....	421	<b>cyanocapilla, Xanthura</b> .....	34
<b>consobrinus, Thyrothorus</b> .....	196	<b>cyanocapillus, Cyanocorax</b> .....	36
<b>conspersus, Catherpes</b> .....	278	<b>Cyanocephalus</b> .....	9
<b>contemptus, Turdus</b> .....	368	<b>cyanocephalus, Cyanocephalus</b> .....	10
<b>cookei, Sitta</b> .....	93	<b>cyanocephalus, Gymnorhinus</b> .....	10
<b>coracinus, Entomodestes</b> .....	445	<b>Cyanocitta</b> .....	59
<b>coracinus, Myiadestes</b> .....	445	<b>Cyanocorax</b> .....	17
<b>coraya, Myothera</b> .....	186	<b>cyanodorsalis, Cyanocorax</b> .....	33
<b>coraya, Thyrothorus</b> .....	190	<b>cyanodorsalis, Xanthoura</b> .....	32
<b>coraya, Turdus</b> .....	190	<b>cyanodorsalis, Xanthura</b> .....	33
<b>cornix, Corvus</b> .....	3	<b>Cyanogarrulus</b> .....	59
<b>coronata, Cyanocitta</b> .....	64	<b>cyanogenys, Psilorhinus</b> .....	16
<b>coronata, Zeledonia</b> .....	484	<b>cyanolaema, Cyanolyca</b> .....	42
<b>coronatus, Garrulus</b> .....	64	<b>cyanoleuca, Uroleuca</b> .....	30
<b>Corone</b> .....	1	<b>cyanoleucus, Cyanocorax</b> .....	29
<b>Coronideus</b> .....	17	<b>Cyanolyca</b> .....	41
<b>corrasus, Microcerculus</b> .....	285	<b>cyanomelaena, Pica</b> .....	25
<b>correctus, Thyomanes</b> .....	212	<b>cyanomelas, Coronideus</b> .....	25
<b>Corthylus</b> .....	510	<b>cyanomelas, Cyanocorax</b> .....	25
<b>Corvus</b> .....	1	<b>cyanomelas, Garrulus</b> .....	25
<b>coryi, Cichlherminia</b> .....	451	<b>cyanomelas, Pica</b> .....	25
<b>coryi, Mimocichla</b> .....	448	<b>cyanopogon, Corvus</b> .....	23
<b>Cossyphopsis</b> .....	351	<b>cyanopogon, Cyanocorax</b> .....	23
<b>costaricensis, Campylorhynchus</b> .....	139	<b>Cyanosylvia</b> .....	483
<b>costaricensis, Catharus</b> .....	471	<b>cyanotis, Aphelocoma</b> .....	55
<b>costaricensis, Heleodytes</b> .....	139	<b>Cyanurus</b> .....	17
<b>costaricensis, Thyrophilus</b> .....	179		
<b>costaricensis, Thyrothorus</b> .....	179	<b>daguae, Planesticus</b> .....	366
<b>couchii, Aphelocoma</b> .....	56	<b>daguae, Polioptila</b> .....	501
<b>couchii, Cyanocitta</b> .....	56	<b>daguae, Turdus</b> .....	365
<b>couesi, Campylorhynchus</b> .....	147	<b>dariensis, Henicorhina</b> .....	259
<b>couesi, Heleodytes</b> .....	147	<b>daulias, Microcerculus</b> .....	283
<b>cozumelae, Polioptila</b> .....	488	<b>debilis, Planesticus</b> .....	395
<b>crissalis, Toxostoma</b> .....	302	<b>debilis, Turdus</b> .....	393
<b>cristata, Cyanocitta</b> .....	60	<b>deflexus, Turdus</b> .....	298
<b>cristatella, Uroleuca</b> .....	29	<b>delenificus, Mimus</b> .....	308
<b>cristatellus, Corvus</b> .....	29	<b>densirostris, Margarops</b> .....	342
<b>cristatus, Corvus</b> .....	60	<b>densirostris, Turdus</b> .....	342
<b>crotopezus, Merula</b> .....	398	<b>densus, Turdus</b> .....	453
<b>crotopezus, Planesticus</b> .....	411	<b>diademata, Cyanocitta</b> .....	63

<i>diadematus</i> , <i>Cyanogarrulus</i> .....	63	<i>euryzonus</i> , <i>Turdus</i> .....	406
<i>dichroa</i> , <i>Leucolepis</i> .....	287	<i>evura</i> , <i>Parus</i> .....	78
<i>dichrous</i> , <i>Cyphorhinus</i> .....	288	<b>Exanthoura</b> .....	30
<i>dichrous</i> , <i>Rhinorchilus</i> .....	288	<i>exsul</i> , <i>Salpinctes</i> .....	274
<i>dierythrus</i> , <i>Nesomimus</i> .....	336	<i>extima</i> , <i>Certhia</i> .....	104
<i>diesingii</i> , <i>Cyanocorax</i> .....	20	<i>extimus</i> , <i>Turdus</i> .....	381
<i>differens</i> , <i>Planesticus</i> .....	391	<i>eydouxii</i> , <i>Troglodytes</i> .....	115
<i>differens</i> , <i>Merula</i> .....	391	<i>falcklandicus</i> , <i>Turdus</i> .....	358
<b>differens</b> , <i>Turdus</i> .....	391	<i>falcklandii</i> , <i>Turdus</i> .....	357
<i>dissaepius</i> , <i>Cistothorus</i> .....	125	<i>falklandicus</i> , <i>Planesticus</i> .....	357
<i>domestica</i> , <i>Sylvia</i> .....	217	<i>fasciata</i> , <i>Chamaea</i> .....	105
<i>dominicanus</i> , <i>Myadestes</i> .....	438	<i>fasciatoventris</i> , <i>Cyphorhinus</i> .....	185
<i>dominicanus</i> , <i>Myiadestes</i> .....	438	<i>fasciato-ventris</i> , <i>Pheugopedius</i> .....	184
<i>dominicensis</i> , <i>Cichlherminia</i> .....	451	<i>fasciato-ventris</i> , <i>Thryothorus</i> .....	183
<i>dominicensis</i> , <i>Corvus</i> .....	8	<i>fasciatus</i> , <i>Campylorhynchus</i> .....	135
<i>dominicensis</i> , <i>Margarops</i> .....	451	<i>fasciatus</i> , <i>Furnarius</i> .....	135
<i>dominicensis</i> , <i>Turdus</i> .....	452	<i>fasciatus</i> , <i>Heleodytes</i> .....	135
<i>dominicus</i> , <i>Mimus</i> .....	310	<i>fasciatus</i> , <i>Parus</i> .....	105
<i>dominicus</i> , <i>Turdus</i> .....	309	<i>fasciatus</i> , <i>Salpinctes</i> .....	276
<b>Donacobius</b> .....	347	<i>fasciolatus</i> , <i>Cistothorus</i> .....	116
<i>dorsale</i> , <i>Toxostoma</i> .....	302	<i>fasciolatus</i> , <i>Troglodytes</i> .....	116
<i>dorsalis</i> , <i>Mimus</i> .....	331	<i>faxonii</i> , <i>Hylocichla</i> .....	456
<i>dorsalis</i> , <i>Orpheus</i> .....	331	<i>Felivox</i> .....	305
<i>dryas</i> , <i>Catharus</i> .....	461	<i>felivox</i> , <i>Turdus</i> .....	305
<i>dryas</i> , <i>Malacocichla</i> .....	461	<i>felix</i> , <i>Pheugopedius</i> .....	199
<i>dryas</i> , <i>Turdus</i> .....	461	<i>felix</i> , <i>Thryothorus</i> .....	199
<i>drymoecus</i> , <i>Thryomanes</i> .....	212	<b>Ferminia</b> .....	216
<i>duidae</i> , <i>Microcerculus</i> .....	286	<i>ferrugineus</i> , <i>Turdus</i> .....	386
<i>duidae</i> , <i>Troglodytes</i> .....	251	<i>festinus</i> , <i>Troglodytes</i> .....	247
<i>duidae</i> , <i>Turdus</i> .....	408	<i>festiva</i> , <i>Henicorhina</i> .....	270
<b>Dumetella</b> .....	305	<i>flaviceps</i> , <i>Aegithalus</i> .....	86
<i>dumicola</i> , <i>Poliophtila</i> .....	488	<i>flaviceps</i> , <i>Auriparus</i> .....	86
<i>dumicola</i> , <i>Sylvia</i> .....	488	<i>flavipes</i> , <i>Merula</i> .....	426
<i>Dysornithia</i> .....	66	<i>flavipes</i> , <i>Platycichla</i> .....	425
<i>effuticius</i> , <i>Melanotis</i> .....	303	<i>flavipes</i> , <i>Turdus</i> .....	425
<i>eidos</i> , <i>Parus</i> .....	74	<i>flavirostris</i> , <i>Planesticus</i> .....	356
<i>eidos</i> , <i>Penthestes</i> .....	74	<i>flavirostris</i> , <i>Turdus</i> .....	355
<i>eidouxii</i> , <i>Cistothorus</i> .....	115	<i>floridana</i> , <i>Aphelocoma</i> .....	51
<i>eidouxii</i> , <i>Thryothorus</i> .....	115	<i>floridanus</i> , <i>Corvus</i> .....	51
<i>elegans</i> , <i>Calocitta</i> .....	12	<i>floridanus</i> , <i>Parus</i> .....	81
<i>elegans</i> , <i>Cistothorus</i> .....	122	<i>florincola</i> , <i>Cyanocitta</i> .....	60
<i>elegans</i> , <i>Mimus</i> .....	308	<i>formosa</i> , <i>Calocitta</i> .....	12
<i>elisabeth</i> , <i>Musicapa</i> .....	436	<i>formosa</i> , <i>Pica</i> .....	12
<i>elisabeth</i> , <i>Myadestes</i> .....	436	<i>frantzii</i> , <i>Catharus</i> .....	469
<i>elisabethae</i> , <i>Myiadestes</i> .....	436	<i>frater</i> , <i>Mimus</i> .....	327
<i>elutus</i> , <i>Thryophilus</i> .....	170	<i>frater</i> , <i>Troglodytes</i> .....	250
<i>elutus</i> , <i>Thryothorus</i> .....	170	<i>fraterculus</i> , <i>Auriparus</i> .....	87
<i>enochrus</i> , <i>Troglodytes</i> .....	236	<i>fredericki</i> , <i>Planesticus</i> .....	386
<b>Entomodestes</b> .....	444	<i>frontalis</i> , <i>Cyanocitta</i> .....	62
<i>ephippialis</i> , <i>Planesticus</i> .....	403	<i>frontalis</i> , <i>Cyanura</i> .....	62
<i>ephippialis</i> , <i>Turdus</i> .....	401	<i>frugilegus</i> , <i>Corvus</i> .....	9
<i>episcopus</i> , <i>Sialia</i> .....	478	<i>frugivorus</i> , <i>Corvus</i> .....	3
<i>eremita</i> , <i>Mimocichla</i> .....	449	<i>fuliginosa</i> , <i>Hylocichla</i> .....	460
<i>eremophilus</i> , <i>Thryomanes</i> .....	210	<i>fuliginosa</i> , <i>Pica</i> .....	14
<i>erythrophthalmus</i> , <i>Turdus</i> .....	303	<i>fuliginosa</i> , <i>Psilorrhinus</i> .....	15
<i>erythrophthalmus</i> , <i>Corvus</i> .....	8	<i>fulva</i> , <i>Cinnycerthia</i> .....	113
<i>eucharis</i> , <i>Henicorhina</i> .....	258	<i>fulva</i> , <i>Sialia</i> .....	479
<i>euophrys</i> , <i>Pheugopedius</i> .....	197	<i>fulvescens</i> , <i>Catharus</i> .....	467
<i>euophrys</i> , <i>Thryothorus</i> .....	197	<i>fulvescens</i> , <i>Cistothorus</i> .....	120
<i>euophilus</i> , <i>Corvus</i> .....	2	<i>fulviventris</i> , <i>Turdus</i> .....	406
<i>euryzona</i> , <i>Merula</i> .....	406	<i>fulvus</i> , <i>Thryophilus</i> .....	114

<b>fumifrons, Perisoreus</b> .....	68
fumigata, Merula.....	384
fumigatus, Planesticus.....	384
fumigatus, Turdus.....	385
fumosus, Catharus.....	464
furvus, Troglodytes.....	233
fusa, Merula.....	402
fusca, <i>Allenia</i> .....	339
fusca, <i>Colluricincla</i> .....	341
fusca, <i>Muscicapa</i> .....	339
fuscata, <i>Cichlherminia</i> .....	341
fuscater, Catharus.....	465
fuscater, Merula.....	359
fuscater, Myioturdus.....	465
fuscater, Planesticus.....	423
fuscater, Turdus.....	415
fuscatra, Merula.....	423
fuscatra, Semimerula.....	423
fuscatus, <i>Margarops</i> .....	341
fuscatus, Turdus.....	341
fuscescens, <i>Hylocichla</i> .....	459
fuscescens, Turdus.....	459
fuscoater, Turdus.....	359
fuscobrunneus, Planesticus.....	412
fuscobrunneus, Turdus.....	412
fuscus, Garrulus.....	67
galbraithi, Thryophilus.....	159
galbraithii, Thryophilus.....	166
galbraithii, Thryothorus.....	166
galeata, Cyanocitta.....	64
galeata, Xanthoura.....	32
galeatus, Lophophanes.....	85
Galeoscoptes.....	305
gambeli, Parus.....	76
gambeli, Penthestes.....	75
Garrulina.....	50
genibarbis, Myadestes.....	439
genibarbis, Myiadectes.....	438
genibarbis, Myiadestes.....	439
genibarbis, Pheugopedius.....	186
genibarbis, Thryothorus.....	186
geoffroyi, Cyanocorax.....	39
germana, Cyanocitta.....	39
gigantodes, Merula.....	416
gigantodes, Planesticus.....	417
gigantodes, Semimerula.....	416
gigantodes, Turdus.....	416
gigas, Merula.....	416
gigas, Planesticus.....	419
gigas, Semimerula.....	418
gigas, Turdus.....	419
gilvus, Mimus.....	313
gilvus, Turdus.....	313
glabrirostris, Melanoptila.....	304
glauescens, Xanthoura.....	36
goodfellowi, Planesticus.....	393
goodfellowi, Thryothorus.....	198
goodfellowi, Turdus.....	393
gracilirostris, Catharus.....	475
gracilis, Aphelocoma.....	56
gracilis, Mimus.....	320

<b>graminicola, Cistothorus</b> .....	121
grandis, Pheugopedius.....	200
grandis, Thryothorus.....	200
grata, Sialia.....	478
grata, Sialia.....	478
grayi, Merula.....	375
grayi, Planesticus.....	375
grayi, Turdus.....	375
graysoni, Harporhynchus.....	305
graysoni, Merula.....	356
graysoni, Mimodes.....	305
graysoni, Planesticus.....	356
graysoni, Turdus.....	356
grenadensis, Thryothorus.....	218
grenadensis, Troglodytes.....	218
grindae, Aegithalos.....	90
grindae, Psaltriparus.....	90
grinnelli, Parus.....	75
grinnelli, Penthestes.....	75
grinnelli, Regulus.....	513
griscomi, Aphelocoma.....	59
grisea, Aphelocoma.....	54
griseiceps, Catharus.....	475
griseicollis, Heterorhina.....	263
griseigula, Formicivora.....	191
griseigula, Pheugopedius.....	190
griseigula, Thryothorus.....	190
griseipectus, Pheugopedius.....	194
griseipectus, Thryothorus.....	193
griseiventer, Ptilogonyx.....	440
griseolateralis, Cyphorhinus.....	289
griseolateralis, Leucolapis.....	289
griseolateralis, Nannorchilus.....	271
griseus, Baeolophus.....	84
griseus, Campylorhynchus.....	128
griseus, Cistothorus.....	125
griseus, Furnarius.....	128
griseus, Heleodytes.....	128
griseus, Parus.....	512
griseus, Perisoreus.....	69
griseus, Telmatodytes.....	125
griseus, Thryophilus.....	157
griseus, Thryothorus.....	157
grisifrons, Mimus.....	305
guadeloupensis, Salpinctes.....	274
guadeloupensis, Thryothorus.....	220
guadeloupensis, Troglodytes.....	220
guadelupensis, L'Hermierius.....	344
guarayana, Troglodytes.....	158
guarayanus, Thryophilus.....	158
guarayanus, Thryothorus.....	158
guarixa, Troglodytes.....	232
guatemalae, Sialia.....	479
guatemalensis, Cyanocorax.....	34
guatemalensis, Mimus.....	320
guatimalensis, Xanthoura.....	34
gubernatrix, Garrula.....	12
guerrerensis, Aphelocoma.....	58
guianensis, Polioptila.....	492
gularis, Campylorhynchus.....	151
gularis, Cichlopsis.....	432
gularis, Heleodytes.....	151

<i>gularis</i> , Troglodytes.....	205	<i>hudsonicus</i> , Penthestes.....	78
<i>gularis</i> , Turdampelis.....	433	<i>hudsonius</i> , Corvus.....	10
<i>gundlachii</i> , Mimus.....	311	<i>hulli</i> , Nesomimus.....	338
<i>guttata</i> , Henicorhina.....	263	<i>humilis</i> , Campylorhynchus.....	146
<i>guttata</i> , Hylodichla.....	453	<i>humilis</i> , Heleodytes.....	146
<i>guttata</i> , Muscicapa.....	453	<i>humivagans</i> , Cistothorus.....	121
<i>guttatum</i> , Toxostoma.....	296	<i>hyacinthinus</i> , Cyanocorax.....	27
<i>guttatus</i> , Harporhynchus.....	296	<i>Hydrichla</i> .....	106
<i>guttatus</i> , Heleodytes.....	149	<i>Hydrobata</i> .....	106
<i>guttatus</i> , Salpinctes.....	275	<i>Hylemathrous</i> .....	154
<i>guttatus</i> , Thryothorus.....	149	<i>Hylodichla</i> .....	452
<i>guttatus</i> , Troglodytes.....	262	<i>Hylorchilus</i> .....	279
<i>guttatus</i> , Turdus.....	453	<i>hypaeon</i> , Troglodytes.....	222
<i>guttulatus</i> , Thryothorus.....	277	<i>hyperythrus</i> , Pheugopedius.....	207
<i>gutturalis</i> , Cinclocerthia.....	346	<i>hyperythrus</i> , Thryothorus.....	207
<i>gutturalis</i> , Ramphocinclus.....	346	<i>hypoleuca</i> , Aphelocoma.....	53
<i>Gymnocitta</i> .....	10	<i>hypoleucus</i> , Melanotis.....	304
<i>gymnogenys</i> , Turdus.....	380	<i>hypoleucus</i> , Thryophilus.....	163
<i>Gymnokitta</i> .....	10	<i>hypoleucus</i> , Thryothorus.....	163
<i>gymnophthalmus</i> , Merula.....	380	<i>hypospodius</i> , Pheugopedius.....	207
<i>gymnophthalmus</i> , Planesticus.....	380	<i>hypospodius</i> , Thryothorus.....	206
<i>gymnophthalmus</i> , Turdus.....	379	<i>hypostictus</i> , Campylorhynchus.....	133
<i>gymnopsis</i> , Turdus.....	380	<i>hypostictus</i> , Heleodytes.....	133
<i>haplochrous</i> , Turdus.....	382	<i>ignatius</i> , Auriparus.....	86
<i>Haplocichla</i> .....	449	<i>ignobilis</i> , Merula.....	392
<i>Harporhynchus</i> .....	295	<i>ignobilis</i> , Planesticus.....	392
<i>harrisi</i> , Cyanocorax.....	27	<i>ignobilis</i> , Turdus.....	392
<i>harterti</i> , Heleodytes.....	131	<i>iliacus</i> , Telmatodytes.....	125
<i>harterti</i> , Thryothorus.....	187	<i>immaculatus</i> , Catharus.....	472
<i>hauxwelli</i> , Henicorhina.....	256	<i>immanis</i> , Aphelocoma.....	51
<i>hauxwelli</i> , Merula.....	387	<i>imparatus</i> , Corvus.....	5
<i>hauxwelli</i> , Turdus.....	387	<i>impiger</i> , Parus.....	73
<i>heckelii</i> , Cyanocorax.....	28	<i>impiger</i> , Penthestes.....	73
<i>heilprini</i> , Cyanocorax.....	25	<i>impudens</i> , Heleodytes.....	139
<i>Heleodytes</i> .....	128	<i>incompta</i> , Merula.....	379
<i>helleri</i> , Anorthura.....	254	<i>incomptus</i> , Turdus.....	378
<i>helleri</i> , Nannus.....	254	<i>indicus</i> , Parus.....	81
<i>helleri</i> , Olbiorchilus.....	254	<i>inexpectatus</i> , Cyanocorax.....	28
<i>helleri</i> , Troglodytes.....	254	<i>infasciata</i> , Cinnicerthia.....	113
<i>hellmayri</i> , Catharus.....	464	<i>infaustus</i> , L'Herminierus.....	344
<i>helva</i> , Toxostoma.....	300	<i>infuscata</i> , Leucolepis.....	294
<i>helviventris</i> , Psaltrites.....	92	<i>infuscata</i> , Merula.....	414
<i>helvolum</i> , Toxostoma.....	300	<i>infuscata</i> , Semimerula.....	415
<i>helvolus</i> , Turdus.....	375	<i>infuscatra</i> , Merula.....	415
<i>Henicorhina</i> .....	255	<i>infuscatus</i> , Cyphorhinus.....	294
<i>henshawi</i> , Chamaea.....	105	<i>infuscatus</i> , Planesticus.....	415
<i>herberti</i> , Thryothorus.....	191	<i>infuscatus</i> , Turdus.....	414
<i>herminieri</i> , Cichlherminia.....	451	<i>innotata</i> , Polioptila.....	498
<i>herminieri</i> , Margarops.....	451	<i>inornata</i> , Henicorhina.....	257
<i>herrmanni</i> , Mimus.....	329	<i>inornatus</i> , Baeolophus.....	83
<i>hesperis</i> , Corvus.....	4	<i>inornatus</i> , Parus.....	82
<i>Hesperocichla</i> .....	424	<i>inquietus</i> , Troglodytes.....	223
<i>hiemalis</i> , Nannus.....	251	<i>insperata</i> , Zeledonia.....	484
<i>hiemalis</i> , Olbiorchilus.....	251	<i>insularis</i> , Aphelocoma.....	53
<i>hiemalis</i> , Troglodytes.....	251	<i>insularis</i> , Myadestes.....	436
<i>hilaris</i> , Henicorhina.....	265	<i>insularis</i> , Sitta.....	97
<i>hillii</i> , Mimus.....	312	<i>insularis</i> , Thryomanes.....	215
<i>hornensis</i> , Cistothorus.....	114	<i>insularis</i> , Troglodytes.....	215
<i>hornensis</i> , Troglodytes.....	114	<i>insularum</i> , Toxostoma.....	300
<i>hudsonia</i> , Pica.....	10	<i>intensus</i> , Pheugopedius.....	206
<i>hudsonicus</i> , Parus.....	78	<i>intensus</i> , Thryothorus.....	206



intercapularis, Troglodytes	118	Legriocinclus	343
intercedens, Pheugopedius	188	lembeyei, Culicivora	510
intercedens, Thryothorus	188	lembeyei, Polioptila	510
interior, Pheugopedius	206	lereboulleti, Turdus	374
interior, Thryothorus	206	leucauchen, Merula	364
intermedia, Chamaea	105	leucauchen, Planesticus	362
intermedius, Cyanocorax	24	leucauchen, Turdus	362
intermedius, Troglodytes	221	leucocephalus, Cinclus	109
interposita, Leucolepis	289	leucogaster, Nannorchilus	271
interscapularis, Cistothorus	118	leucogastra, Culicivora	495
interscapularis, Thryothorus	118	leucogastra, Hemiura	272
inyoensis, Parus	77	leucogastra, Polioptila	495
inyoensis, Penthestes	77	leucogastra, Troglodytes	271
irrequies, Troglodytes	222	leucogastra, Uropsila	271
ituribisciensis, Thryothorus	190	leucogenus, Turdus	449
iulus, Aegithalos	91	leucogenys, Cichlopsis	432
iulus, Psaltriparus	91	leucogenys, Turdampelis	432
Ixocossyphus	351	leucogenys, Turdus	450
Ixoreus	424	leucognaphalus, Corvus	8
		leucognaphalus, Microcorax	8
Jacapani, Oriolus	347	Leucolepis	286
jalisensis, Certhia	103	leucomelas, Merula	398
jamaicensis, Corvus	7	leucomelas, Planesticus	400
jamaicensis, Merula	374	leucomelas, Turdus	399
jamaicensis, Microcorax	7	Leucomimus	306
jamaicensis, Planesticus	374	leuconotus, Cinclus	108
jamaicensis, Turdus	374	leuconucha, Sitta	99
jocosus, Campylorhynchus	150	leucophaeus, Mimus	321
jocosus, Heleodytes	150	leucophrys, Cyphorhinus	262
jolyaea, Cyanocitta	43	leucophrys, Cyphorhinus	269
jolyaea, Cyanolyca	43	leucophrys, Henicorhina	262
jolyaea, Xanthura	43	leucophrys, Thryomanes	213
juancitonis, Catharus	469	leucophrys, Thryothorus	213
juensis, Planesticus	406	leucophrys, Troglodytes	262
juensis, Turdus	405	leucophthalma, Merula	374
juruanus, Thriothorus	187	leucopogon, Thryophilus	176
juruanus, Thryothorus	187	leucopogon, Thryothorus	176
		leucops, Merula	431
kennicotti, Acanthopneuste	485	leucops, Planesticus	429
kennicotti, Phyllopneuste	485	leucops, Platycichla	431
kiskensis, Nannus	252	leucops, Turdus	431
kiskensis, Troglodytes	252	leucorhoa, Motacilla	483
		leucorhoa, Oenanthe	483
lactea, Polioptila	494	leucorhoa, Saxicola	483
laetus, Pheugopedius	207	leucopterus, Mimus	307
laetus, Thryothorus	207	leucopterus, Orpheus	307
lagunae, Sitta	95	leucospilos, Mimus	325
laingi, Cistothorus	126	leucosticta, Certhia	102
laingi, Telnatodytes	126	leucosticta, Cyphorhinus	255
lamprocephalus, Auriceps	86	leucosticta, Henicorhina	255
larvata, Pica	24	leucostictus, Cyphorhinus	262
lateralis, Thryophilus	182	leucostictus, Heterorhina	260
lawrencei, Mimus	320	leucostictus, Microcerculus	260
lawrencii, Cichlherminia	451	leucostictus, Thryothorus	260
lawrencii, Cyphorhinus	293	leucoterus, Mimus	316
lawrencii, Leucolepis	293	leucotis, Entomodestes	445
lawrencii, Pheugopedius	201	leucotis, Myiadestes	445
lawrencii, Planesticus	390	leucotis, Ptilogonyx	445
lawrencii, Thryothorus	201	leucotis, Thryophilus	164
lawrencii, Turdus	389	leucotis, Thryothorus	165
lazula, Cyanocitta	65	l'herminieri, Cichlherminia	450
lecontei, Toxostoma	301	l'Herminieri, Thriothorus	344

<i>L'Herminieri</i> , <i>Turdus</i> .....	450	<i>magellanicus</i> , <i>Planesticus</i> .....	359
<i>L'Herminierus</i> .....	344	<i>magellanicus</i> , <i>Troglodytes</i> .....	238
<i>ligea</i> , <i>Troglodytes</i> .....	246	<i>magellanicus</i> , <i>Turdus</i> .....	357
<i>litoralis</i> , <i>Cyanocitta</i> .....	61	<i>magna</i> , <i>Polioptila</i> .....	503
<i>litorea</i> , <i>Sitta</i> .....	93	<i>magnirostris</i> , <i>Mimus</i> .....	321
<i>littoralis</i> , <i>Parus</i> .....	79	<i>maior</i> , <i>Polioptila</i> .....	493
<i>littoralis</i> , <i>Penthestes</i> .....	79	<i>major</i> , <i>Platycichla</i> .....	426
<i>littoralis</i> , <i>Thryothorus</i> .....	154	<i>major</i> , <i>Polioptila</i> .....	493
<i>livida</i> , <i>Motacilla</i> .....	496	<i>Malacocichla</i> .....	461
<i>livida</i> , <i>Polioptila</i> .....	497	<i>maranonicus</i> , <i>Turdus</i> .....	407
<i>lividus</i> , <i>Mimus</i> .....	313	<i>margaritae</i> , <i>Polioptila</i> .....	509
<i>lividus</i> , <i>Turdus</i> .....	305	<i>Margarops</i> .....	340
<i>lloydi</i> , <i>Aegithalos</i> .....	91	<i>marginata</i> , <i>Heterocnemis</i> .....	281
<i>lloydi</i> , <i>Psaltriparus</i> .....	91	<i>marginatus</i> , <i>Cyphorinus</i> .....	281
<i>Locustella</i> .....	485	<i>marginatus</i> , <i>Microcerculus</i> .....	281
<i>lomitensis</i> , <i>Thryothorus</i> .....	155	<i>marianae</i> , <i>Cistothorus</i> .....	126
<i>longicauda</i> , <i>Harporhynchus</i> .....	295	<i>marianae</i> , <i>Telmatodytes</i> .....	126
<i>longicaudatus</i> , <i>Mimus</i> .....	325	<i>mariannae</i> , <i>Troglodytes</i> .....	217
<i>longipes</i> , <i>Pheugopedius</i> .....	198	<i>marinensis</i> , <i>Thryomanes</i> .....	211
<i>longipes</i> , <i>Thryothorus</i> .....	198	<i>martae</i> , <i>Planesticus</i> .....	408
<i>longirostra</i> , <i>Gracula</i> .....	347	<i>martae</i> , <i>Turdus</i> .....	408
<i>longirostre</i> , <i>Toxostoma</i> .....	296	<i>martinicensis</i> , <i>Thryothorus</i> .....	219
<i>longirostris</i> , <i>Melanotis</i> .....	304	<i>martinicensis</i> , <i>Troglodytes</i> .....	219
<i>longirostris</i> , <i>Orpheus</i> .....	296	<i>mearnsi</i> , <i>Harporhynchus</i> .....	297
<i>longirostris</i> , <i>Thryophilus</i> .....	156	<i>mearnsi</i> , <i>Toxostoma</i> .....	297
<i>longirostris</i> , <i>Thryothorus</i> .....	155	<i>megalopterus</i> , <i>Campylorhynchus</i> .....	136
<i>longirostris</i> , <i>Melanotis</i> .....	303	<i>megalopterus</i> , <i>Heleodytes</i> .....	136
<i>Lophocorax</i> .....	59	<i>megas</i> , <i>Turdus</i> .....	376
<i>louisianae</i> , <i>Thryothorus</i> .....	154	<i>megonyx</i> , <i>Corvus</i> .....	9
<i>Lucar</i> .....	305	<i>melanocephala</i> , <i>Polioptila</i> .....	495
<i>lucida</i> , <i>Polioptila</i> .....	508	<i>melanocephala</i> , <i>Sitta</i> .....	93
<i>lucidus</i> , <i>Cistothorus</i> .....	121	<i>melanocephalus</i> , <i>Parus</i> .....	70
<i>ludoviciana</i> , <i>Sylvia</i> .....	154	<i>melanocyanea</i> , <i>Cissilopha</i> .....	40
<i>ludovicianus</i> , <i>Thryothorus</i> .....	154	<i>melanocyanea</i> , <i>Cyanocitta</i> .....	40
<i>lurida</i> , <i>Merula</i> .....	379	<i>melanocyanea</i> , <i>Cyanolyca</i> .....	40
<i>luridus</i> , <i>Turdus</i> .....	379	<i>melanocyanea</i> , <i>Xanthura</i> .....	40
<i>lusciniæ</i> , <i>Microcerculus</i> .....	282	<i>melanocyaneus</i> , <i>Cyanocorax</i> .....	40
<i>luteola</i> , <i>Pica</i> .....	30	<i>melanocyaneus</i> , <i>Garrulus</i> .....	40
<i>luxuosa</i> , <i>Xanthoura</i> .....	36	<i>melanogaster</i> , <i>Pheugopedius</i> .....	185
<i>luxuosa</i> , <i>Xanthura</i> .....	35	<i>melanogaster</i> , <i>Thryothorus</i> .....	185
<i>luxuosus</i> , <i>Cyanocorax</i> .....	36	<i>melanopleura</i> , <i>Merula</i> .....	429
<i>luxuosus</i> , <i>Garrulus</i> .....	36	<i>melanopleura</i> , <i>Platycichla</i> .....	429
<i>lygrus</i> , <i>Turdus</i> .....	360	<i>melanops</i> , <i>Myadestes</i> .....	443
<i>macdonaldi</i> , <i>Nesomimus</i> .....	334	<i>melanops</i> , <i>Myiadestes</i> .....	443
<i>macrolopha</i> , <i>Cyanocitta</i> .....	63	<i>melanopterus</i> , <i>Mimus</i> .....	316
<i>macroptera</i> , <i>Sialia</i> .....	482	<i>Melanoptila</i> .....	304
<i>macrorhyncha</i> , <i>Cinclocerthia</i> .....	346	<i>melanos</i> , <i>Thryothorus</i> .....	190
<i>macrourus</i> , <i>Troglodytes</i> .....	249	<i>melanostoma</i> , <i>Harporhynchus</i> .....	297
<i>macrurus</i> , <i>Pheugopedius</i> .....	197	<i>Melanotis</i> .....	303
<i>macrurus</i> , <i>Thryothorus</i> .....	197	<i>melanotis</i> , <i>Aegithalos</i> .....	92
<i>maculata</i> , <i>Malacocichla</i> .....	462	<i>melanotis</i> , <i>Mimus</i> .....	334
<i>maculatum</i> , <i>Toxostoma</i> .....	299	<i>melanotis</i> , <i>Nesomimus</i> .....	334
<i>maculatus</i> , <i>Catharus</i> .....	462	<i>melanotis</i> , <i>Orpheus</i> .....	334
<i>maculatus</i> , <i>Harporhynchus</i> .....	299	<i>melanotis</i> , <i>Parus</i> .....	92
<i>maculatus</i> , <i>Salpinctes</i> .....	275	<i>melanotis</i> , <i>Psaltria</i> .....	92
<i>maculipectus</i> , <i>Pheugopedius</i> .....	202	<i>melanotis</i> , <i>Psaltriparus</i> .....	92
<i>maculipectus</i> , <i>Thryothorus</i> .....	202	<i>melanotis</i> , <i>Sitta</i> .....	98
<i>maculirostris</i> , <i>Turdus</i> .....	382	<i>melanotis</i> , <i>Turdus</i> .....	303
<i>magdalenae</i> , <i>Pheugopedius</i> .....	201	<i>melanotus</i> , <i>Parus</i> .....	92
<i>magdalenae</i> , <i>Thryothorus</i> .....	201	<i>melanura</i> , <i>Polioptila</i> .....	507
<i>magellanica</i> , <i>Merula</i> .....	359	<i>melanurus</i> , <i>Psaltriparus</i> .....	89

<i>meliger</i> , <i>Nannus</i> .....	252	<i>minor</i> , <i>Heleodytes</i> .....	129
<i>meligera</i> , <i>Anorthura</i> .....	252	<i>minor</i> , <i>Odontorchilus</i> .....	153
<i>meligerus</i> , <i>Nannus</i> .....	252	<i>minor</i> , <i>Sitta</i> .....	97
<i>meligerus</i> , <i>Olbiorchilus</i> .....	252	<i>minor</i> , <i>Thryophilus</i> .....	158
<i>meligerus</i> , <i>Troglodytes</i> .....	252	<i>minor</i> , <i>Thryothorus</i> .....	158
<i>meliphonus</i> , <i>Catherpes</i> .....	277	<i>minuscula</i> , <i>Merula</i> .....	373
<i>melodius</i> , <i>Turdus</i> .....	453	<i>minuscule</i> , <i>Turdus</i> .....	373
<i>melodus</i> , <i>Turdus</i> .....	453	<i>minutus</i> , <i>Corvus</i> .....	7
<i>melpomene</i> , <i>Catharus</i> .....	470	<i>mirabilis</i> , <i>Catharus</i> .....	466
<i>melpomene</i> , <i>Turdus</i> .....	470	<i>mirabilis</i> , <i>Cyanolyca</i> .....	48
<i>mentalis</i> , <i>Catharus</i> .....	467	<i>missouriensis</i> , <i>Lophophanes</i> .....	81
<i>meridae</i> , <i>Cistothorus</i> .....	123	<i>mitrata</i> , <i>Cyanolyca</i> .....	47
<i>meridana</i> , <i>Cyanocitta</i> .....	45	<i>modestus</i> , <i>Thryophilus</i> .....	169
<i>meridana</i> , <i>Cyanolyca</i> .....	45	<i>modestus</i> , <i>Thryothorus</i> .....	169
<i>meridana</i> , <i>Henicorhina</i> .....	266	<i>modulator</i> , <i>Cyphorhinus</i> .....	290
<i>meridana</i> , <i>Xanthura</i> .....	45	<i>modulator</i> , <i>Leucocleptia</i> .....	290
<i>meridionalis</i> , <i>Sialia</i> .....	480	<i>modulator</i> , <i>Mimus</i> .....	329
<i>merle</i> , <i>Turdus</i> .....	309	<i>modulator</i> , <i>Orpheus</i> .....	329
<i>merula</i> , <i>Turdus</i> .....	351	<i>modulator</i> , <i>Thryothorus</i> .....	290
<i>meruloides</i> , <i>Hesperocichla</i> .....	425	<i>modulatrix</i> , <i>Leucocleptis</i> .....	290
<i>meruloides</i> , <i>Ixoreus</i> .....	424	<i>montana</i> , <i>Alenia</i> .....	340
<i>meruloides</i> , <i>Orpheus</i> .....	424	<i>montana</i> , <i>Certhia</i> .....	101
<i>mesoleucus</i> , <i>Thryothorus</i> .....	219	<i>montana</i> , <i>Cichlherminia</i> .....	340
<i>mesoleucus</i> , <i>Troglodytes</i> .....	219	<i>montanella</i> , <i>Motacilla</i> .....	295
<i>metallophonus</i> , <i>Turdus</i> .....	411	<i>montanella</i> , <i>Prunella</i> .....	295
<i>Methriopterus</i> .....	295	<i>montanus</i> , <i>Margarops</i> .....	340
<i>mexicana</i> , <i>Corone</i> .....	6	<i>montanus</i> , <i>Myadestes</i> .....	437
<i>mexicana</i> , <i>Culicivora</i> .....	487	<i>montanus</i> , <i>Myiadestes</i> .....	438
<i>mexicana</i> , <i>Henicorhina</i> .....	270	<i>montanus</i> , <i>Myiadestes</i> .....	437
<i>mexicana</i> , <i>Malacocychla</i> .....	462	<i>montanus</i> , <i>Oreoscoptes</i> .....	339
<i>mexicana</i> , <i>Polioptila</i> .....	487	<i>montanus</i> , <i>Orpheus</i> .....	339
<i>mexicana</i> , <i>Sialia</i> .....	480	<i>monticola</i> , <i>Troglodytes</i> .....	245
<i>mexicana</i> , <i>Sitta</i> .....	96	<i>morio</i> , <i>Pica</i> .....	14
<i>mexicanus</i> , <i>Catharus</i> .....	462	<i>morio</i> , <i>Psilorhinus</i> .....	14
<i>mexicanus</i> , <i>Catherpes</i> .....	276	<i>mortoni</i> , <i>Cinclus</i> .....	106
<i>mexicanus</i> , <i>Cinclus</i> .....	107	<i>murinus</i> , <i>Baeolophus</i> .....	83
<i>mexicanus</i> , <i>Corvus</i> .....	6	<i>murinus</i> , <i>Parus</i> .....	83
<i>mexicanus</i> , <i>Legriocinclus</i> .....	343	<i>murinus</i> , <i>Planesticus</i> .....	395
<i>mexicanus</i> , <i>Petrodroma</i> .....	343	<i>murinus</i> , <i>Thryomanes</i> .....	214
<i>mexicanus</i> , <i>Psilorhinus</i> .....	15	<i>murinus</i> , <i>Thryothorus</i> .....	214
<i>mexicanus</i> , <i>Thryothorus</i> .....	276	<i>murinus</i> , <i>Troglodytes</i> .....	236
<i>miamensis</i> , <i>Thryothorus</i> .....	154	<i>murinus</i> , <i>Turdus</i> .....	395
<i>Microcerculus</i> .....	279	<i>musculus</i> , <i>Troglodytes</i> .....	230
<i>Microcorax</i> .....	1	<i>musica</i> , <i>Hemiura</i> .....	272
<i>microstictus</i> , <i>Pheugopedius</i> .....	201	<i>musica</i> , <i>Leucocleptia</i> .....	289
<i>microstictus</i> , <i>Thryothorus</i> .....	201	<i>musicus</i> , <i>Cyphorhinus</i> .....	288
<i>migratorius</i> , <i>Planesticus</i> .....	352	<i>musicus</i> , <i>Formicarius</i> .....	288
<i>migratorius</i> , <i>Turdus</i> .....	352	<i>musicus</i> , <i>Nannorchilus</i> .....	272
<i>Mimetes</i> .....	306	<i>musicus</i> , <i>Thryothorus</i> .....	219
<i>Mimocichla</i> .....	445	<i>musicus</i> , <i>Troglodytes</i> .....	219
<i>Mimocitta</i> .....	446	<i>mustelina</i> , <i>Hylocichla</i> .....	452
<i>Mimodes</i> .....	305	<i>mustelinus</i> , <i>Turdus</i> .....	452
<i>Mimokitta</i> .....	446	<i>Myadestes</i> .....	434
<i>Mimus</i> .....	306	<i>Myiocichla</i> .....	432
<i>minima</i> , <i>Hylocichla</i> .....	459	<i>mystacalis</i> , <i>Cyanocorax</i> .....	22
<i>minimus</i> , <i>Aegithalos</i> .....	89	<i>mystacalis</i> , <i>Pheugopedius</i> .....	195
<i>minimus</i> , <i>Parus</i> .....	88	<i>mystacalis</i> , <i>Pica</i> .....	22
<i>minimus</i> , <i>Psaltriparus</i> .....	88	<i>mystacalis</i> , <i>Thryothorus</i> .....	194
<i>minimus</i> , <i>Turdus</i> .....	459	<i>naevia</i> , <i>Geocichla</i> .....	424
<i>minlosi</i> , <i>Thryophilus</i> .....	175	<i>naevia</i> , <i>Hesperocichla</i> .....	424
<i>minlosi</i> , <i>Thryothorus</i> .....	175	<i>naevius</i> , <i>Ixoreus</i> .....	424
<i>minor</i> , <i>Campylorhynchus</i> .....	129		

<i>naevius</i> , <i>Turdus</i> .....	424	<i>obscurus</i> , <i>Perisoreus</i> .....	69
<i>nana</i> , <i>Aphelocoma</i> .....	48	<i>obscurus</i> , <i>Regulus</i> .....	514
<i>nana</i> , <i>Cyanolyca</i> .....	48	<i>obsoleta</i> , <i>Merula</i> .....	389
<i>nana</i> , <i>Hylodichla</i> .....	454	<i>obsoleta</i> , <i>Troglodytes</i> .....	273
<i>nannoides</i> , <i>Troglodytes</i> .....	245	<i>obsoletus</i> , <i>Planesticus</i> .....	389
<i>Nannorchilus</i> .....	271	<i>obsoletus</i> , <i>Salpinctes</i> .....	273
<i>Nannus</i> .....	216	<i>obsoletus</i> , <i>Turdus</i> .....	389
<i>nanus</i> , <i>Cyanocitta</i> .....	48	<i>occidentale</i> , <i>Toxostoma</i> .....	299
<i>nanus</i> , <i>Cyanocorax</i> .....	48	<i>occidentalis</i> , <i>Catharus</i> .....	468
<i>nanus</i> , <i>Turdus</i> .....	454	<i>occidentalis</i> , <i>Certhia</i> .....	101
<i>narinosus</i> , <i>Heleodytes</i> .....	151	<i>occidentalis</i> , <i>Heleodytes</i> .....	151
<i>nasicus</i> , <i>Corvus</i> .....	7	<i>occidentalis</i> , <i>Methriopterus</i> .....	299
<i>nasicus</i> , <i>Microcorax</i> .....	8	<i>occidentalis</i> , <i>Microcerculus</i> .....	282
<i>neglectus</i> , <i>Parus</i> .....	80	<i>occidentalis</i> , <i>Myadestes</i> .....	435
<i>neglectus</i> , <i>Penthestes</i> .....	80	<i>occidentalis</i> , <i>Parus</i> .....	72
<i>neglectus</i> , <i>Salpinctes</i> .....	275	<i>occidentalis</i> , <i>Penthestes</i> .....	72
<i>nelsoni</i> , <i>Cissilopha</i> .....	38	<i>occidentalis</i> , <i>Sialia</i> .....	480
<i>nelsoni</i> , <i>Heleodytes</i> .....	137	<i>ocellatum</i> , <i>Toxostoma</i> .....	297
<i>nelsoni</i> , <i>Polioptila</i> .....	488	<i>ocellatus</i> , <i>Harporhynchus</i> .....	297
<i>nelsoni</i> , <i>Sitta</i> .....	94	<i>ochotensis</i> , <i>Locustella</i> .....	485
<i>Nesomimus</i> .....	333	<i>ochotensis</i> , <i>Sylvia</i> .....	485
<i>nesophilus</i> , <i>Thryomanes</i> .....	212	<i>ochraceus</i> , <i>Troglodytes</i> .....	246
<i>nicaraguae</i> , <i>Heleodytes</i> .....	144	<i>ochrata</i> , <i>Myiocyhla</i> .....	432
<i>nigrescens</i> , <i>Merula</i> .....	420	<i>ochro-fulvescens</i> , <i>Planesticus</i> .....	384
<i>nigrescens</i> , <i>Planesticus</i> .....	420	<i>ockendeni</i> , <i>Planesticus</i> .....	416
<i>nigrescens</i> , <i>Turdus</i> .....	420	<i>ockendeni</i> , <i>Turdus</i> .....	416
<i>nigricans</i> , <i>Penthestes</i> .....	79	<i>Odontorchilus</i> .....	151
<i>nigricapillus</i> , <i>Perisoreus</i> .....	66	<i>oedica</i> , <i>Hylodichla</i> .....	457
<i>nigricapillus</i> , <i>Thryophilus</i> .....	177	<i>Oenanthe</i> .....	482
<i>nigricapillus</i> , <i>Thryothorus</i> .....	177	<i>oenanthe</i> , <i>Motacilla</i> .....	482
<i>nigricaudatus</i> , <i>Heleodytes</i> .....	145	<i>oenanthe</i> , <i>Oenanthe</i> .....	482
<i>nigriceps</i> , <i>Campylorhynchus</i> .....	138	<i>oenanthe</i> , <i>Saxicola</i> .....	482
<i>nigriceps</i> , <i>Cyanocorax</i> .....	26	<i>Olbiorchilus</i> .....	216
<i>nigriceps</i> , <i>Merula</i> .....	410	<i>olivaceus</i> , <i>Regulus</i> .....	511
<i>nigriceps</i> , <i>Planesticus</i> .....	410	<i>olivascens</i> , <i>Catharus</i> .....	467
<i>nigriceps</i> , <i>Polioptila</i> .....	506	<i>olivascens</i> , <i>Cinnycerthia</i> .....	112
<i>nigriceps</i> , <i>Turdus</i> .....	410	<i>olivater</i> , <i>Planesticus</i> .....	408
<i>nigriloris</i> , <i>Mimus</i> .....	325	<i>olivater</i> , <i>Turdus</i> .....	408
<i>nigrirostris</i> , <i>Merula</i> .....	383	<i>olivatra</i> , <i>Merula</i> .....	408
<i>nigrirostris</i> , <i>Planesticus</i> .....	383	<i>omiltemensis</i> , <i>Catharus</i> .....	468
<i>nigrirostris</i> , <i>Turdus</i> .....	383	<i>omnisonus</i> , <i>Troglodytes</i> .....	117
<i>nigrogularis</i> , <i>Cyanolyca</i> .....	49	<i>oocleptica</i> , <i>Aphelocoma</i> .....	51
<i>nisorius</i> , <i>Thryophilus</i> .....	181	<i>oreopolis</i> , <i>Troglodytes</i> .....	223
<i>nisorius</i> , <i>Thryothorus</i> .....	181	<i>Oreoscoptes</i> .....	339
<i>nitidus</i> , <i>Troglodytes</i> .....	244	<i>ornata</i> , <i>Cyanocitta</i> .....	48
<i>nobilis</i> , <i>Corvus</i> .....	2	<i>ornata</i> , <i>Cyanolyca</i> .....	48
<i>notius</i> , <i>Salpinctes</i> .....	274	<i>ornatum</i> , <i>Conirostrum</i> .....	88
<i>nuchalis</i> , <i>Campylorhynchus</i> .....	141	<i>ornatus</i> , <i>Auriparus</i> .....	88
<i>nuchalis</i> , <i>Heleodytes</i> .....	141	<i>ornatus</i> , <i>Cyanocorax</i> .....	47
<i>nuchalis</i> , <i>Pica</i> .....	67	<i>Oroscoptes</i> .....	339
<i>Nucifraga</i> .....	9	<i>Orpheus</i> .....	306
<i>nudigenis</i> , <i>Turdus</i> .....	379	<i>orpheus</i> , <i>Microcerculus</i> .....	283
<i>nuttalli</i> , <i>Pica</i> .....	11	<i>orpheus</i> , <i>Mimus</i> .....	309
		<i>orpheus</i> , <i>Turdus</i> .....	309
<i>oberholseri</i> , <i>Myadestes</i> .....	435	<i>ortoni</i> , <i>Cyanocorax</i> .....	22
<i>oberholseri</i> , <i>Toxostoma</i> .....	298	<i>ossifragus</i> , <i>Coleus</i> .....	5
<i>oblitus</i> , <i>Turdus</i> .....	364	<i>ossifragus</i> , <i>Corvus</i> .....	5
<i>obscura</i> , <i>Aphelocoma</i> .....	52	<i>oyapocensis</i> , <i>Thryothorus</i> .....	190
<i>obscura</i> , <i>Polioptila</i> .....	487		
<i>obscurus</i> , <i>Corthylio</i> .....	514	<i>pacifica</i> , <i>Hemiura</i> .....	271
<i>obscurus</i> , <i>Heleodytes</i> .....	149	<i>pacificus</i> , <i>Nannorchilus</i> .....	271
<i>obscurus</i> , <i>Myadestes</i> .....	434	<i>pacificus</i> , <i>Nannus</i> .....	254

<i>pacificus</i> , <i>Olbiorchilus</i> .....	254	<i>personus</i> , <i>Planesticus</i> .....	383
<i>pacificus</i> , <i>Troglodytes</i> .....	254	<i>personus</i> , <i>Turdus</i> .....	383
<i>pallasi</i> , <i>Hylocichla</i> .....	456	<i>peruana</i> , <i>Cinnycerthia</i> .....	112
<i>pallasi</i> , <i>Turdus</i> .....	453	<i>peruana</i> , <i>Presbys</i> .....	112
<i>pallens</i> , <i>Myadestes</i> .....	444	<i>peruanus</i> , <i>Thryophilus</i> .....	160
<i>pallescens</i> , <i>Campylorhynchus</i> .....	135	<i>peruanus</i> , <i>Thryothorus</i> .....	160
<i>pallescens</i> , <i>Heleodytes</i> .....	135	<i>peruviana</i> , <i>Cinnicerthia</i> .....	112
<i>pallescens</i> , <i>Thryophilus</i> .....	166	<i>peruviana</i> , <i>Xanthura</i> .....	31
<i>palliat</i> , <i>Turdus</i> .....	355	<i>peruvianus</i> , <i>Cichlopsis</i> .....	433
<i>pallida</i> , <i>Troglodytes</i> .....	238	<i>peruvianus</i> , <i>Corvus</i> .....	30
<i>pallidipectus</i> , <i>Troglodytes</i> .....	248	<i>peruvianus</i> , <i>Cyanocorax</i> .....	31
<i>pallidiventris</i> , <i>Planesticus</i> .....	419	<i>peruvianus</i> , <i>Garrulus</i> .....	30
<i>pallidiventris</i> , <i>Turdus</i> .....	419	<i>peruvianus</i> , <i>Mimus</i> .....	325
<i>pallidus</i> , <i>Campylorhynchus</i> .....	134	<i>petenicus</i> , <i>Thryothorus</i> .....	199
<i>pallidus</i> , <i>Pheugopedius</i> .....	200	<i>petersi</i> , <i>Pheugopedius</i> .....	204
<i>pallidus</i> , <i>Thryothorus</i> .....	200	<i>petersi</i> , <i>Thryothorus</i> .....	204
<i>palmarum</i> , <i>Corvus</i> .....	6	<i>petrophilus</i> , <i>Nannus</i> .....	253
<i>palmeri</i> , <i>Harporhynchus</i> .....	299	<i>petrophilus</i> , <i>Troglodytes</i> .....	253
<i>palmeri</i> , <i>Toxostoma</i> .....	299	<i>phaea</i> , <i>Chamaea</i> .....	104
<i>paludicola</i> , <i>Cistothorus</i> .....	127	<i>phaeocephala</i> , <i>Leucolepis</i> .....	292
<i>paludicola</i> , <i>Telmatodytes</i> .....	127	<i>phaeocephalus</i> , <i>Cyphorinus</i> .....	292
<i>palustris</i> , <i>Certhia</i> .....	124	<i>Phaeopharus</i> .....	70
<i>palustris</i> , <i>Cistothorus</i> .....	124	<i>phaeopleurus</i> , <i>Catharus</i> .....	475
<i>palustris</i> , <i>Telmatodytes</i> .....	124	<i>phaeopygoides</i> , <i>Merula</i> .....	373
<i>panamensis</i> , <i>Heleodytes</i> .....	140	<i>phaeopygoides</i> , <i>Planesticus</i> .....	373
<i>panamensis</i> , <i>Planesticus</i> .....	365	<i>phaeopygoides</i> , <i>Turdus</i> .....	372
<i>paraguayensis</i> , <i>Merula</i> .....	366	<i>phaeopygus</i> , <i>Merula</i> .....	372
<i>paraguayensis</i> , <i>Planesticus</i> .....	366	<i>phaeopygus</i> , <i>Planesticus</i> .....	370
<i>paraguayensis</i> , <i>Turdus</i> .....	366	<i>phaeopygus</i> , <i>Turdus</i> .....	371
<i>paramaribensis</i> , <i>Troglodytes</i> .....	228	<i>Pheugopedius</i> .....	154
<i>parambana</i> , <i>Merula</i> .....	389	<i>phillipsi</i> , <i>Turdus</i> .....	354
<i>parambanus</i> , <i>Turdus</i> .....	388	<i>philomela</i> , <i>Cyphorhinus</i> .....	282
<i>paramosa</i> , <i>Cinnicerthia</i> .....	198	<i>philomela</i> , <i>Microcerculus</i> .....	282
<i>parcolor</i> , <i>Turdus</i> .....	363	<i>philomelloides</i> , <i>Merula</i> .....	460
<i>pardus</i> , <i>Campylorhynchus</i> .....	142	<i>phoeopigus</i> , <i>Turdus</i> .....	372
<i>pardus</i> , <i>Heleodytes</i> .....	142	<i>piauhyensis</i> , <i>Thryophilus</i> .....	159
<i>parkmanii</i> , <i>Troglodytes</i> .....	217	<i>Pica</i> .....	10
<i>Parus</i> .....	70	<i>Picicorvus</i> .....	9
<i>parvirostris</i> , <i>Polioptila</i> .....	497	<i>pileatus</i> , <i>Corvus</i> .....	18
<i>parvulus</i> , <i>Mimus</i> .....	335	<i>pileatus</i> , <i>Cyanocorax</i> .....	18
<i>parvulus</i> , <i>Nesomimus</i> .....	335	<i>pinicola</i> , <i>Geocichla</i> .....	477
<i>parvulus</i> , <i>Orpheus</i> .....	335	<i>pinicola</i> , <i>Ridgwayia</i> .....	476
<i>parvus</i> , <i>Troglodytes</i> .....	229	<i>pinicola</i> , <i>Turdus</i> .....	476
<i>pasadenense</i> , <i>Toxostoma</i> .....	300	<i>pittieri</i> , <i>Henicorhina</i> .....	259
<i>pasadenensis</i> , <i>Harporhynchus</i> .....	300	<i>Planesticus</i> .....	351
<i>pascuus</i> , <i>Corvus</i> .....	4	<i>platensis</i> , <i>Cistothorus</i> .....	116
<i>patagonicus</i> , <i>Mimus</i> .....	322	<i>platensis</i> , <i>Mimus</i> .....	326
<i>patagonicus</i> , <i>Orpheus</i> .....	322	<i>platensis</i> , <i>Sylvia</i> .....	116
<i>paucimaculatus</i> , <i>Pheugopedius</i> .....	209	<i>platensis</i> , <i>Thryothorus</i> .....	241
<i>paucimaculatus</i> , <i>Thryothorus</i> .....	209	<i>platensis</i> , <i>Troglodytes</i> .....	231
<i>Paulomagus</i> .....	216	<i>Platycichla</i> .....	425
<i>paulus</i> , <i>Corvus</i> .....	4	<i>plebeia</i> , <i>Merula</i> .....	392
<i>pavida</i> , <i>Cinclocerthia</i> .....	344	<i>plebeius</i> , <i>Turdus</i> .....	391
<i>pectoralis</i> , <i>Microcerculus</i> .....	284	<i>plebejus</i> , <i>Merula</i> .....	392
<i>pembertonii</i> , <i>Turdus</i> .....	368	<i>plebejus</i> , <i>Planesticus</i> .....	392
<i>peninsularis</i> , <i>Troglodytes</i> .....	221	<i>plebejus</i> , <i>Turdus</i> .....	391
<i>Penthestes</i> .....	70	<i>plesius</i> , <i>Cistothorus</i> .....	127
<i>percnus</i> , <i>Thryomanes</i> .....	215	<i>plesius</i> , <i>Telmatodytes</i> .....	127
<i>percontatrix</i> , <i>Cyanocitta</i> .....	63	<i>pleurostictus</i> , <i>Thryophilus</i> .....	180
<i>Perisoreus</i> .....	66	<i>pleurostictus</i> , <i>Thryothorus</i> .....	180
<i>personatus</i> , <i>Nesomimus</i> .....	337	<i>plumbea</i> , <i>Mimocichla</i> .....	447
<i>personatus</i> , <i>Psaltiriparus</i> .....	92	<i>plumbea</i> , <i>Mimokitta</i> .....	447

<b>plumbea, Polioptila</b> . . . . .	496	<b>quindio, Turdus</b> . . . . .	418
<b>plumbea, Psaltria</b> . . . . .	90	<b>quindiuna, Cyanocitta</b> . . . . .	44
<b>plumbeiceps, Myadestes</b> . . . . .	441	<b>quindiuna, Cyanolyca</b> . . . . .	44
<b>plumbeiceps, Myiadeses</b> . . . . .	441	<b>quindiuna, Xanthura</b> . . . . .	44
<b>plumbeus, Mimus</b> . . . . .	312		
<b>plumbeus, Psaltriparus</b> . . . . .	90	<b>rafaelensis, Turdus</b> . . . . .	391
<b>plumbeus, Todus</b> . . . . .	496	<b>ralloides, Muscipeta</b> . . . . .	440
<b>plumbeus, Turdus</b> . . . . .	447	<b>ralloides, Myadestes</b> . . . . .	440
<b>plumbiceps, Polioptila</b> . . . . .	499	<b>ralloides, Myiadeses</b> . . . . .	440
<b>Poecila</b> . . . . .	70	<b>Ramphocinclus</b> . . . . .	342
<b>Poecilia</b> . . . . .	70	<b>rathbuni, Perisoreus</b> . . . . .	69
<b>Poikilis</b> . . . . .	70	<b>ravida, Mimocichla</b> . . . . .	449
<b>poiteaui, Turdus</b> . . . . .	371	<b>ravus, Thryophilus</b> . . . . .	181
<b>polionota, Hylodichla</b> . . . . .	455	<b>ravus, Thryothorus</b> . . . . .	181
<b>polionota, Merula</b> . . . . .	428	<b>rediviva, Harpes</b> . . . . .	300
<b>polionota, Platycichla</b> . . . . .	428	<b>redivivum, Toxostoma</b> . . . . .	300
<b>poliopleura, Thryophilus</b> . . . . .	172	<b>reevei, Cossyphopsis</b> . . . . .	409
<b>Polioptila</b> . . . . .	485	<b>reevei, Merula</b> . . . . .	409
<b>poliophilus, Catherpes</b> . . . . .	278	<b>reevei, Turdus</b> . . . . .	409
<b>polyglottos, Mimus</b> . . . . .	307	<b>reguloides, Regulus</b> . . . . .	511
<b>polyglottos, Turdus</b> . . . . .	307	<b>Regulus</b> . . . . .	510
<b>polyglottus, Cistothorus</b> . . . . .	117	<b>remotus, Troglodytes</b> . . . . .	247
<b>polyglottus, Thryothorus</b> . . . . .	117	<b>renominatus, Turdus</b> . . . . .	361
<b>pompata, Calocitta</b> . . . . .	13	<b>restricta, Polioptila</b> . . . . .	507
<b>pontilis, Polioptila</b> . . . . .	509	<b>restrictus, Baeolophus</b> . . . . .	83
<b>portoricensis, Mimocichla</b> . . . . .	446	<b>restrictus, Heleodytes</b> . . . . .	138
<b>portoricensis, Mimus</b> . . . . .	310	<b>retusus, Myadestes</b> . . . . .	436
<b>portoricensis, Turdus</b> . . . . .	446	<b>rex, Troglodytes</b> . . . . .	233
<b>potosina, Aphelocoma</b> . . . . .	57	<b>Ramphocinclus</b> . . . . .	343
<b>pratensis, Turdus</b> . . . . .	347	<b>Rhinorchilus</b> . . . . .	287
<b>Presbys</b> . . . . .	110	<b>richardsoni, Corvus</b> . . . . .	2
<b>principalis, Corvus</b> . . . . .	1	<b>richardsoni, Cyphorhinus</b> . . . . .	294
<b>propinqua, Leucolepis</b> . . . . .	292	<b>richardsoni, Leucolepis</b> . . . . .	294
<b>propinquus, Planesticus</b> . . . . .	353	<b>ridgwayi, Cyanocitta</b> . . . . .	65
<b>propinquus, Turdus</b> . . . . .	353	<b>ridgwayi, Parus</b> . . . . .	84
<b>prostheleuca, Henicorhina</b> . . . . .	261	<b>ridgwayi, Pheugopedius</b> . . . . .	190
<b>prostheleuca, Heterorhina</b> . . . . .	261	<b>ridgwayi, Thryorchilus</b> . . . . .	255
<b>prostheleucus, Cyphorhinus</b> . . . . .	261	<b>ridgwayi, Thryothorus</b> . . . . .	189
<b>prostheleucus, Scytalopus</b> . . . . .	261	<b>Ridgwayia</b> . . . . .	476
<b>proximus, Salpinctes</b> . . . . .	273	<b>rivularis, Cinclus</b> . . . . .	108
<b>Prunella</b> . . . . .	295	<b>robusta, Cyanosylvia</b> . . . . .	483
<b>Psaltriparus</b> . . . . .	88	<b>roraimae, Merula</b> . . . . .	407
<b>Psaltrites</b> . . . . .	88	<b>roraimae, Planesticus</b> . . . . .	407
<b>Psilorhinus</b> . . . . .	14	<b>roraimae, Turdus</b> . . . . .	407
<b>pulchra, Cissilopha</b> . . . . .	37	<b>rosaceus, Thryothorus</b> . . . . .	238
<b>pulchra, Cissolopha</b> . . . . .	37	<b>rostratus, Mimus</b> . . . . .	315
<b>pulchra, Cyanocitta</b> . . . . .	46	<b>rubecola, Platyrus</b> . . . . .	288
<b>pulchra, Cyanolyca</b> . . . . .	46	<b>rubicundus, Planesticus</b> . . . . .	361
<b>pullus, Thryophilus</b> . . . . .	169	<b>rubicundus, Turdus</b> . . . . .	361
<b>pullus, Thryothorus</b> . . . . .	168	<b>rubineus, Regulus</b> . . . . .	512
<b>pulverius, Salpinctes</b> . . . . .	273	<b>rubripes, Galeoscoptes</b> . . . . .	448
<b>pumilo, Cyanocitta</b> . . . . .	49	<b>rubripes, Mimocichla</b> . . . . .	448
<b>pumilo, Cyanocorax</b> . . . . .	49	<b>rubripes, Turdus</b> . . . . .	448
<b>pumilo, Cyanolyca</b> . . . . .	49	<b>rufa, Certhia</b> . . . . .	100
<b>puna, Troglodytes</b> . . . . .	235	<b>rufalbus, Thryophilus</b> . . . . .	172
<b>punctulatus, Catherpes</b> . . . . .	279	<b>rufalbus, Thryothorus</b> . . . . .	172
<b>punensis, Mimus</b> . . . . .	326	<b>rufescens, Parus</b> . . . . .	79
<b>purus, Heleodytes</b> . . . . .	148	<b>rufescens, Penthestes</b> . . . . .	80
<b>pusilla, Heterorhina</b> . . . . .	272	<b>rufescens, Thryothorus</b> . . . . .	220
<b>pusilla, Sitta</b> . . . . .	97	<b>rufescens, Troglodytes</b> . . . . .	220
<b>pusillus, Cyphorhinus</b> . . . . .	272	<b>ruficauda, Cinclocerthia</b> . . . . .	345
<b>pygmaea, Sitta</b> . . . . .	98	<b>ruficauda, Stenorhynchus</b> . . . . .	345

<i>ruficaudatus</i> , <i>Pheugopedius</i> .....	197	<i>schottii</i> , <i>Thryophilus</i> .....	178
<i>ruficaudatus</i> , <i>Thryothorus</i> .....	196	<i>schottii</i> , <i>Thryothorus</i> .....	178
<i>ruficeps</i> , <i>Thryothorus</i> .....	200	<i>schulzi</i> , <i>Cinclus</i> .....	110
<i>rufinucha</i> , <i>Campylorhynchus</i> .....	146	<i>sclateri</i> , <i>Cyanocorax</i> .....	21
<i>rufinucha</i> , <i>Heleodytes</i> .....	146	<i>sclateri</i> , <i>Parus</i> .....	73
<i>rufinucha</i> , <i>Picolaptes</i> .....	146	<i>sclateri</i> , <i>Penthestes</i> .....	74
<i>rufitorques</i> , <i>Merula</i> .....	355	<i>sclateri</i> , <i>Pheugopedius</i> .....	208
<i>rufitorques</i> , <i>Planesticus</i> .....	355	<i>sclateri</i> , <i>Poliophtila</i> .....	500
<i>rufitorques</i> , <i>Turdus</i> .....	354	<i>sclateri</i> , <i>Thryothorus</i> .....	208
<i>rufiventris</i> , <i>Merula</i> .....	404	<i>scolopaceus</i> , <i>Anumbius</i> .....	134
<i>rufiventris</i> , <i>Planesticus</i> .....	404	<i>scolopaceus</i> , <i>Campylorhynchus</i> ...	132
<i>rufiventris</i> , <i>Thryophilus</i> .....	159	<i>scolopaceus</i> , <i>Kampylorhynchus</i> ...	132
<i>rufiventris</i> , <i>Thryothorus</i> .....	159	<i>scolopaceus</i> , <i>Picolaptes</i> .....	132
<i>rufiventris</i> , <i>Turdus</i> .....	403	<i>scolopaceus</i> , <i>Turdus</i> .....	132
<i>rufociliatus</i> , <i>Troglodytes</i> .....	244	<i>Scyornis</i> .....	477
<i>rufogularis</i> , <i>Leucolepia</i> .....	290	<i>semibadius</i> , <i>Thryophilus</i> .....	180
<i>rufogularis</i> , <i>Leucolepis</i> .....	290	<i>semibadius</i> , <i>Thryothorus</i> .....	180
<i>rufogularis</i> , <i>Sarochalinus</i> .....	290	<i>semidiensis</i> , <i>Nannus</i> .....	253
<i>rufo-palliatu</i> , <i>Turdus</i> .....	355	<i>semidiensis</i> , <i>Troglodytes</i> .....	253
<i>rufula</i> , <i>Chamaea</i> .....	105	<i>Semimerula</i> .....	351
<i>rufulus</i> , <i>Troglodytes</i> .....	251	<i>semperi</i> , <i>Margarops</i> .....	452
<i>rufum</i> , <i>Toxostoma</i> .....	295	<i>semplei</i> , <i>Cyanocitta</i> .....	61
<i>rufus</i> , <i>Heleodytes</i> .....	147	<i>sennetti</i> , <i>Baeolophus</i> .....	82
<i>rufus</i> , <i>Margarops</i> .....	340	<i>sennetti</i> , <i>Harporhynchus</i> .....	296
<i>rufus</i> , <i>Turdus</i> .....	295	<i>sennetti</i> , <i>Parus</i> .....	82
<i>russatus</i> , <i>Catharus</i> .....	474	<i>sennetti</i> , <i>Toxostoma</i> .....	296
<i>russeus</i> , <i>Thryophilus</i> .....	172	<i>septentrionalis</i> , <i>Parus</i> .....	71
<i>russeus</i> , <i>Thryothorus</i> .....	172	<i>septentrionalis</i> , <i>Penthestes</i> .....	71
<i>rutilus</i> , <i>Pheugopedius</i> .....	205	<i>sequestratus</i> , <i>Baeolophus</i> .....	82
<i>rutilus</i> , <i>Thryothorus</i> .....	205	<i>sequestratus</i> , <i>Parus</i> .....	82
<i>rutilus</i> , <i>Troglodytes</i> .....	205	<i>sequoiensis</i> , <i>Hylocichla</i> .....	455
<i>salicicola</i> , <i>Hylocichla</i> .....	460	<i>sequoiensis</i> , <i>Turdus</i> .....	455
<i>Salpinctes</i> .....	273	<i>serrana</i> , <i>Merula</i> .....	412
<i>saltuensis</i> , <i>Pheugopedius</i> .....	195	<i>serranus</i> , <i>Planesticus</i> .....	412
<i>saltuensis</i> , <i>Thryothorus</i> .....	195	<i>serranus</i> , <i>Turdus</i> .....	412
<i>salvini</i> , <i>Cyphorhinus</i> .....	291	<i>Sialia</i> .....	477
<i>salvini</i> , <i>Leucolepis</i> .....	291	<i>sialis</i> , <i>Motacilla</i> .....	477
<i>san-blasiana</i> , <i>Cissilopha</i> .....	37	<i>sialis</i> , <i>Sialia</i> .....	477
<i>sanblasiana</i> , <i>Cyanocitta</i> .....	38	<i>sibilans</i> , <i>Myadestes</i> .....	440
<i>sanblasiana</i> , <i>Cyanolyca</i> .....	38	<i>sibilans</i> , <i>Myiadectes</i> .....	440
<i>san-blasiana</i> , <i>Pica</i> .....	37	<i>sibilans</i> , <i>Myiadestes</i> .....	440
<i>sanblasiana</i> , <i>Xanthura</i> .....	38	<i>sieberli</i> , <i>Aphelocoma</i> .....	57
<i>san-blasianus</i> , <i>Cyanocorax</i> .....	37	<i>sieberli</i> , <i>Pica</i> .....	57
<i>sanctae-lucia</i> , <i>Cichlherminia</i> .....	452	<i>Sieberocitta</i> .....	50
<i>sanctae-lucia</i> , <i>Margarops</i> .....	452	<i>sierrae</i> , <i>Catharus</i> .....	472
<i>sanctae-lucia</i> , <i>Myadestes</i> .....	439	<i>silens</i> , <i>Turdus</i> .....	460
<i>sanctae-lucia</i> , <i>Myiadestes</i> .....	439	<i>sinaloa</i> , <i>Thryophilus</i> .....	171
<i>sanctae-lucia</i> , <i>Ramphocinclus</i> .....	343	<i>sinaloa</i> , <i>Thryothorus</i> .....	171
<i>sanctae-lucia</i> , <i>Turdus</i> .....	452	<i>sinuatus</i> , <i>Corvus</i> .....	2
<i>sanctae-martae</i> , <i>Catharus</i> .....	465	<i>Sitta</i> .....	93
<i>sanctae-martae</i> , <i>Planesticus</i> .....	408	<i>Sittella</i> .....	93
<i>sanctae-martae</i> , <i>Turdus</i> .....	408	<i>Skotiomimus</i> .....	306
<i>sanfordi</i> , <i>Perisoreus</i> .....	66	<i>slevini</i> , <i>Hylocichla</i> .....	454
<i>santaritae</i> , <i>Psaltriparus</i> .....	90	<i>smithi</i> , <i>Catharus</i> .....	463
<i>satrapa</i> , <i>Regulus</i> .....	510	<i>sola</i> , <i>Cinclocerthia</i> .....	345
<i>saturatus</i> , <i>Psaltriparus</i> .....	88	<i>solitarius</i> , <i>Corvus</i> .....	6
<i>saturatus</i> , <i>Turdus</i> .....	370	<i>solitarius</i> , <i>Microcorax</i> .....	6
<i>saturninus</i> , <i>Mimus</i> .....	327	<i>solitarius</i> , <i>Myadestes</i> .....	437
<i>saturninus</i> , <i>Turdus</i> .....	327	<i>solitarius</i> , <i>Myiadestes</i> .....	437
<i>schistacea</i> , <i>Mimocichla</i> .....	447	<i>solitarius</i> , <i>Troglodytes</i> .....	247
<i>schistaceigula</i> , <i>Poliophtila</i> .....	492	<i>solstitialis</i> , <i>Hemiura</i> .....	248
		<i>solstitialis</i> , <i>Troglodytes</i> .....	248



<b>sonomae, Toxostoma</b> .....	301	<b>tecellatus, Troglodytes</b> .....	237
<b>sonorae, Pheugopedius</b> .....	201	<b>Telmatodytes</b> .....	114
<b>sonorae, Thryothorus</b> .....	200	<b>tenebrosa, Cinclocerthia</b> .....	345
<b>sordida, Aphelocoma</b> .....	56	<b>tenuissima, Sitta</b> .....	95
<b>sordidus, Garrulus</b> .....	57	<b>tephromelas, Turdus</b> .....	426
<b>spadix, Pheugopedius</b> .....	183	<b>texana, Aphelocoma</b> .....	54
<b>spadix, Thryothorus</b> .....	183	<b>thayeri, Parus</b> .....	77
<b>speciosa, Xanthoura</b> .....	35	<b>thenca, Mimus</b> .....	323
<b>Sphenura</b> .....	153	<b>thenca, Orpheus</b> .....	323
<b>spilurus, Thryomanes</b> .....	211	<b>thenca, Turdus</b> .....	323
<b>spilurus, Troglodytes</b> .....	211	<b>thoracica, Leucolepia</b> .....	287
<b>splendidus, Corvus</b> .....	29	<b>thoracica, Leucolepis</b> .....	287
<b>Spodesilaura</b> .....	305	<b>thoracicus, Cyphorhinus</b> .....	287
<b>spodiolaemus, Turdus</b> .....	369	<b>thoracicus, Thryophilus</b> .....	175
<b>squamulatus, Microcerculus</b> .....	283	<b>thoracicus, Thryothorus</b> .....	175
<b>stellaris, Cistothorus</b> .....	123	<b>Thriothonus</b> .....	153
<b>stellaris, Troglodytes</b> .....	123	<b>Thryomanes</b> .....	210
<b>stelleri, Corvus</b> .....	61	<b>Thryophilus</b> .....	154
<b>stelleri, Cyanocitta</b> .....	61	<b>thryophilus, Cistothorus</b> .....	126
<b>stevensoni, Nannus</b> .....	253	<b>thryophilus, Telmatodytes</b> .....	126
<b>stevensoni, Troglodytes</b> .....	253	<b>Thryorchilus</b> .....	254
<b>stoneyi, Parus</b> .....	78	<b>Thryothorus</b> .....	153
<b>striaticollis, Campylorhynchus</b> .....	133	<b>tibetanus, Corvus</b> .....	2
<b>striatulus, Thriothonus</b> .....	225	<b>tobagensis, Mimus</b> .....	315
<b>striatulus, Troglodytes</b> .....	225	<b>tobagensis, Pheugopedius</b> .....	204
<b>stridulus, Heleodytes</b> .....	151	<b>tobagensis, Thryothorus</b> .....	204
<b>striolatus, Campylorhynchus</b> .....	156	<b>tobagensis, Troglodytes</b> .....	230
<b>striolatus, Thryophilus</b> .....	156	<b>tolimensis, Mimus</b> .....	318
<b>striolatus, Thryothorus</b> .....	156	<b>townsendi, Cinclus</b> .....	106
<b>stulta, Sitta</b> .....	96	<b>townsendi, Myadestes</b> .....	434
<b>suavis, Cyanocitta</b> .....	65	<b>townsendi, Ptilogonys</b> .....	434
<b>subalaris, Merula</b> .....	411	<b>townsendii, Myiadestes</b> .....	434
<b>subalaris, Planesticus</b> .....	411	<b>Toxostoma</b> .....	295
<b>subalaris, Turdus</b> .....	411	<b>transpositus, Baeolophus</b> .....	83
<b>subulvus, Thryothorus</b> .....	199	<b>transpositus, Parus</b> .....	83
<b>suecica, Cyanosylvia</b> .....	483	<b>tremula, Cinclocerthia</b> .....	344
<b>sumichrasti, Aphelocoma</b> .....	55	<b>tremulus, Ramphocinclus</b> .....	344
<b>sumichrasti, Cathartes</b> .....	279	<b>tricaudatus, Mimus</b> .....	332
<b>sumichrasti, Cyanocitta</b> .....	55	<b>tricaudatus, Orpheus</b> .....	332
<b>sumichrasti, Hylorchilus</b> .....	279	<b>tricolor, Regulus</b> .....	511
<b>sunensis, Pheugopedius</b> .....	194	<b>tricosus, Mimus</b> .....	322
<b>superciliaris, Polioptila</b> .....	502	<b>trifasciatus, Mimus</b> .....	333
<b>superciliaris, Thryophilus</b> .....	168	<b>trifasciatus, Nesomimus</b> .....	333
<b>superciliaris, Thryothorus</b> .....	167	<b>trifasciatus, Orpheus</b> .....	333
<b>superciliosa, Cyanocitta</b> .....	52	<b>trinitatis, Toxostoma</b> .....	302
<b>swainsoni, Hyllocichla</b> .....	457	<b>tristis, Merula</b> .....	360
<b>swainsoni, Turdus</b> .....	457	<b>tristis, Planesticus</b> .....	360
<b>swainsonii, Hyllocichla</b> .....	457	<b>tristis, Turdus</b> .....	360
<b>swalesi, Haplocichla</b> .....	450	<b>triurus, Mimus</b> .....	331
<b>sylvestris, Troglodytes</b> .....	217	<b>triurus, Orpheus</b> .....	332
<b>syncolla, Cyanocitta</b> .....	62	<b>triurus, Turdus</b> .....	331
<b>sztolcmani, Catharus</b> .....	462	<b>Troglodytes</b> .....	216
		<b>troglodytes, Myrmothera</b> .....	279
<b>taeniatus, Microcerculus</b> .....	285	<b>troglodytoides, Synallaxis</b> .....	116
<b>taenioptera, Thryophilus</b> .....	162	<b>tropaea, Henicorhina</b> .....	260
<b>tamae, Cistothorus</b> .....	119	<b>Trypanocorax</b> .....	1
<b>tamaulipensis, Merula</b> .....	377	<b>tucumanus, Cistothorus</b> .....	117
<b>tamaulipensis, Planesticus</b> .....	377	<b>tucumanus, Cyanocorax</b> .....	19
<b>tamaulipensis, Turdus</b> .....	377	<b>turcosa, Cyanocitta</b> .....	46
<b>tanagensis, Nannus</b> .....	253	<b>turcosa, Xantholycia</b> .....	45
<b>tanagensis, Troglodytes</b> .....	252	<b>turcosa, Xanthura</b> .....	46
<b>tanneri, Troglodytes</b> .....	218	<b>turcosus, Cyanocorax</b> .....	46



<b>turdinus, Heleodytes</b> .....	132	<b>viridicyanea, Xanthura</b> .....	42
<b>turdinus, Opetiorhynchus</b> .....	132	<b>viridi-cyanus, Cyanocitta</b> .....	41
<b>turdinus, Pomatorhinus</b> .....	298	<b>viridi-cyanus, Garrulus</b> .....	41
<b>Turdus</b> .....	350	<b>vivax, Penthestes</b> .....	80
<b>turneri, Parus</b> .....	72	<b>vida, Xanthoura</b> .....	35
<b>turneri, Penthestes</b> .....	72	<b>vociferans, Donacobius</b> .....	347
		<b>vociferus, Corvus</b> .....	16
<b>ultramarinus, Corvus</b> .....	57	<b>vociferus, Psilorrhinus</b> .....	16
<b>umbrinus, Pheugopedius</b> .....	203		
<b>umbrinus, Thryothorus</b> .....	203	<b>walteri, Cinclocerthia</b> .....	346
<b>umbrinus, Turdus</b> .....	374	<b>wenmani, Nesomimus</b> .....	337
<b>ungava, Parus</b> .....	78	<b>wiedi, Thryothorus</b> .....	231
<b>unibrunnea, Cinnycerthia</b> .....	111	<b>wiedi, Troglodytes</b> .....	231
<b>unibrunnea, Triothorus</b> .....	111	<b>wilsonii, Sialia</b> .....	477
<b>unibrunneus, Limnornis</b> .....	111	<b>wilsonii, Turdus</b> .....	460
<b>unicolor, Aphelocoma</b> .....	58	<b>wollweberi, Aphelocoma</b> .....	56
<b>unicolor, Campylorhynchus</b> .....	134	<b>wollweberi, Baeolophus</b> .....	85
<b>unicolor, Cinclus</b> .....	106	<b>wollweberi, Lophophanes</b> .....	85
<b>unicolor, Cinnycerthia</b> .....	110	<b>wollweberi, Parus</b> .....	85
<b>unicolor, Cyanocitta</b> .....	58	<b>woodhousei, Cyanocitta</b> .....	53
<b>unicolor, Cyanocorax</b> .....	58	<b>woodhousei, Aphelocoma</b> .....	53
<b>unicolor, Heleodytes</b> .....	134	<b>worthi, Catharus</b> .....	471
<b>unicolor, Myadestes</b> .....	443		
<b>unicolor, Myiadectes</b> .....	443	<b>Xanthocitta</b> .....	30
<b>unicolor, Myiadestes</b> .....	443	<b>xanthoscelus, Merula</b> .....	430
<b>unicoloroides, Campylorhynchus</b> .....	134	<b>xanthoscelus, Platycichla</b> .....	430
<b>unirufa, Cinnycerthia</b> .....	110	<b>xanthoscelus, Turdus</b> .....	430
<b>unirufus, Limnornis</b> .....	110	<b>Xanthura</b> .....	30
<b>Uroleuca</b> .....	29	<b>xerampelinus, Pheugopedius</b> .....	183
<b>uroleucus, Cyanocorax</b> .....	22		
<b>ustulata, Hylocichla</b> .....	456	<b>yncas, Corvus</b> .....	30
<b>ustulatus, Microcerculus</b> .....	286	<b>yncas, Cyanocorax</b> .....	31
<b>ustulatus, Turdus</b> .....	456	<b>yncas, Xanthoura</b> .....	30
		<b>yncas, Xanthura</b> .....	31
<b>varia, Sitta</b> .....	96	<b>yucatanica, Cissilopha</b> .....	39
<b>varians, Pheugopedius</b> .....	204	<b>yucatanica, Cyanocitta</b> .....	39
<b>varians, Thryothorus</b> .....	203	<b>yucatanica, Cyanolyca</b> .....	40
<b>variegatus, Turdus</b> .....	132	<b>yucatanica, Xanthura</b> .....	40
<b>venezuelanus, Thryophilus</b> .....	164	<b>yucatanicus, Heleodytes</b> .....	150
<b>venezuelanus, Thryothorus</b> .....	163		
<b>venezuelensis, Henicorhina</b> .....	268	<b>zeledoni, Cyanocorax</b> .....	21
<b>venezuelensis, Merula</b> .....	427	<b>zeledoni, Thryophilus</b> .....	171
<b>venezuelensis, Myadestes</b> .....	442	<b>zeledoni, Thryothorus</b> .....	170
<b>venezuelensis, Platycichla</b> .....	427	<b>Zeledonia</b> .....	484
<b>venezuelensis, Turdus</b> .....	428	<b>zelotes, Certhia</b> .....	101
<b>veraepacia, Myadestes</b> .....	444	<b>zerophilus, Heleodytes</b> .....	145
<b>verecunda, Hylocichla</b> .....	454	<b>zonatoides, Campylorhynchus</b> .....	140
<b>verrillorum, Mimocichla</b> .....	447	<b>zonatus, Campylorhynchus</b> .....	138
<b>vetula, Toxostoma</b> .....	299	<b>zonatus, Heleodytes</b> .....	138
<b>violaceus, Cyanocorax</b> .....	27	<b>zonatus, Picolaptes</b> .....	138
<b>viridi-cyana, Cyanolyca</b> .....	41	<b>zuliensis, Thryothorus</b> .....	164













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